CHAPTER IV
DISTRIBUTION EXECUTION

"There must be great care taken to send us munition and victual whithersoever the enemy goeth."

Francis Drake

1. General

The complexity and variety of materiel managed by defense agencies and the Services has necessitated the creation of multiple materiel distribution processes. **The elements of global distribution discussed earlier have evolved into commodity-based supply chains aligned to the military classes of supply.** While some elements of these materiel distribution processes may be relatively common across the range of commodities, other distribution elements vary widely between the classes of supply. The detailed policies, techniques, and procedures for classes of supply are documented in other joint or Service publications. This chapter describes nuances in the global distribution elements, where applicable, by class of supply. This will provide the supported combatant commander, and those elements supporting joint force operations, and an integrated supply chain perspective for each commodity. The evolution of military logistics requires an understanding of the growing importance of distribution execution. The traditional distribution process, which included the movement of items through the military depot system to customers, has changed dramatically. Distribution is now being accomplished through a variety of methods. Some distribution continues to be made from producers and vendors through the military depot system, particularly for munitions and repair parts, while commercial contracts for some materiel support now require delivery by the vendor directly to the military customers on a global basis through DVD. Other contracts require delivery by the vendor to the DTS for movement into the overseas areas, where either the contractor takes possession to make the delivery or the shipment is moved by US military capability to the final destination. The caution in expanding commercial applications in global distribution execution is that such capabilities may not be available in some areas where the United States may have to conduct joint operations. **The shift in DOD support philosophy away from the traditional stock-based logistic system to a leaner, just-in-time distribution-based system has reduced the traditional safety net of redundant materiel stocks to support joint military operations.** This shift reinforces the importance of accurate planning and execution of each element of the global distribution of materiel.

2. Classes of Supply

Materiel commodities are categorized into ten classes of supply, each with unique supply chains. Commodity supply classes are identified in Figure IV-1.

Information on the disposal of a particular class of supply is available at DLA-DRMS point of contacts: www.drms.dla.mil/DRMSI/contingencypocs.htm/.

a. **Class I — Subsistence.** Class I is subsistence materiel ranging from military-specification rations to commercial food items. Fundamentally, **basic subsistence requirements are determined by the Services based on feeding plans that are established to support the operational requirements of tactical commanders**. Most subsistence materiel is not stocked at

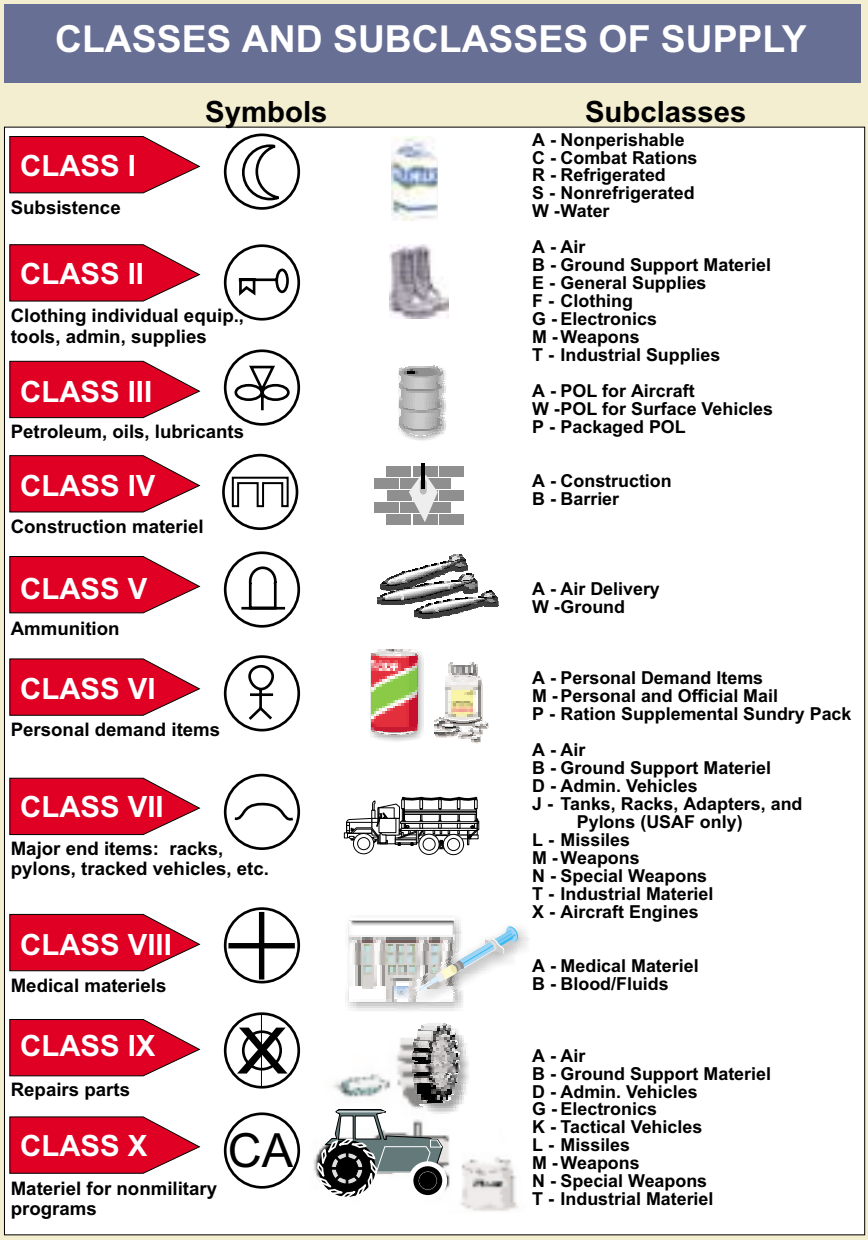


Figure IV-1. Classes and Subclasses of Supply

the strategic level based on current distribution techniques. Operational rations are stocked in limited quantities based on anticipated contingency requirements.

- **Requirements Determination and Stocking Policy.** At the strategic level, Class I requirements are developed by the Services in conjunction with the

materiel manager, Defense Supply Center Philadelphia (DSCP). Factors that affect requirements determination include anticipated missions, operational conditions, geographic locations, unit size, historical usage data, availability of food service personnel and equipment, and supporting food service facilities, storage, and transportation assets. At the operational level, the Service components (guided by the supported combatant command) determine feeding policies and Class I distribution concepts that determine Class I inventory held at various echelons in the theater. Factored into the distribution concept for Class I are the requirements to transition from operational rations to traditional Service feeding plans as the theater matures. Class I items for dining halls and galleys both in CONUS and OCONUS are supplied primarily by PV who provide commercial specification materiel and perform the procurement, stocking, requisition processing, and physical distribution functions previously carried out by DOD activities. **DOD stockage of food service items is now significantly reduced and focuses primarily on operational rations.** Military-specification rations are stocked at operational level logistic organizations to support the contingency requirements of subordinate forces. Class A rations (e.g., fresh meat, fruits, and vegetables) are normally not stocked because of their commercial availability with the exception of naval ships, some military supply activities, and vendor stocks.

•• Operational rations, such as meals, ready-to-eat and unitized group rations, are managed by DSCP at DLA depots and contracted storage sites.

•• Produce is procured as a DVD item from CONUS and OCONUS sources. Because of this commercial method of supply and distribution, produce is no longer stocked within the DOD supply system.

- **Acquisition and Procurement. Most Class I materiel is acquired through PV or DVD contracts for delivery to ships and dining facilities.** Operational rations are procured when forecasts of requirements exceed on-hand inventories. Surge requirements are included in contracts for operational rations as well

Operational rations are the only Class I items held in significant inventory to support theater contingencies.

as PV subsistence materiel. Market-ready items (i.e., baked goods and dairy products), if available, can be locally procured by a lead agent Service component or by individual operational elements. This function also may be performed by DSCP.

- **Requisition Process. Class I materiel is requisitioned by tactical level activities using the Subsistence Total Order and Receipt Electronic System (STORES).** STORES exists at organizational level supply activities. STORES uses electronic data interchange and the Internet to pass catalogs, orders, and receipt information among the Services, vendors, and DSCP. STORES is compatible with individual Service food service management automated information systems (AIS) that determine item levels. These AIS convert anticipated feeding requirements (i.e., headcounts) into requisitions for the appropriate quantities of Class I items.

- **Physical Distribution and Transportation.** Physical distribution of most Class I materiel, other than operational rations, is **primarily a commercial function under PV arrangements** with the following exceptions.

  •• Navy CLF ships load PV source subsistence materiel and transfer it to afloat forces during underway replenishments.

  •• OCONUS prime vendor Class I materiel is shipped via DTS from source load points in CONUS to designated OCONUS locations, where the PV resumes transportation responsibility to the end user.

  •• Due to political or operational considerations in some OCONUS areas, PV subsistence materiel may be transferred to a military control point for further distribution within theater to the end user. Figure IV-2 illustrates the various Class I materiel flows.

  •• **Packaging.** Modern containerization programs improve Class I distribution for joint forces. To facilitate theater distribution, **containers of operational rations can be configured for consumption at a CONUS location in meal or menu sequence for a specific sized unit**. This strategically packaged container can then be moved forward as an intact shipment to the ultimate user, minimizing in-theater handling. Another innovation, controlled atmosphere seavans, has significantly improved the OCONUS arrival condition of US source fresh fruits and vegetables.

- **Retrograde and Return.** Retrograde and return of Class I materiel is not done due to health concerns.

- **Disposal.** Class I items certified no longer fit for human consumption by medical or veterinary personnel are surveyed in accordance with applicable Service procedures. DRMS will assist in the disposal of packaged operational rations.

- **Environmental Considerations.** Class I items that are improperly stored or are spoiled pose a significant health threat to joint force and HN personnel. Proper disposal procedures are required to prevent potential food poisoning or vector control problems. Proper disposal of the solid waste and residue must be considered. These considerations include disposal through the DRMS and servicing Defense Reutilization and Marketing Office (DRMO) to prevent health hazards and ensure that disposal

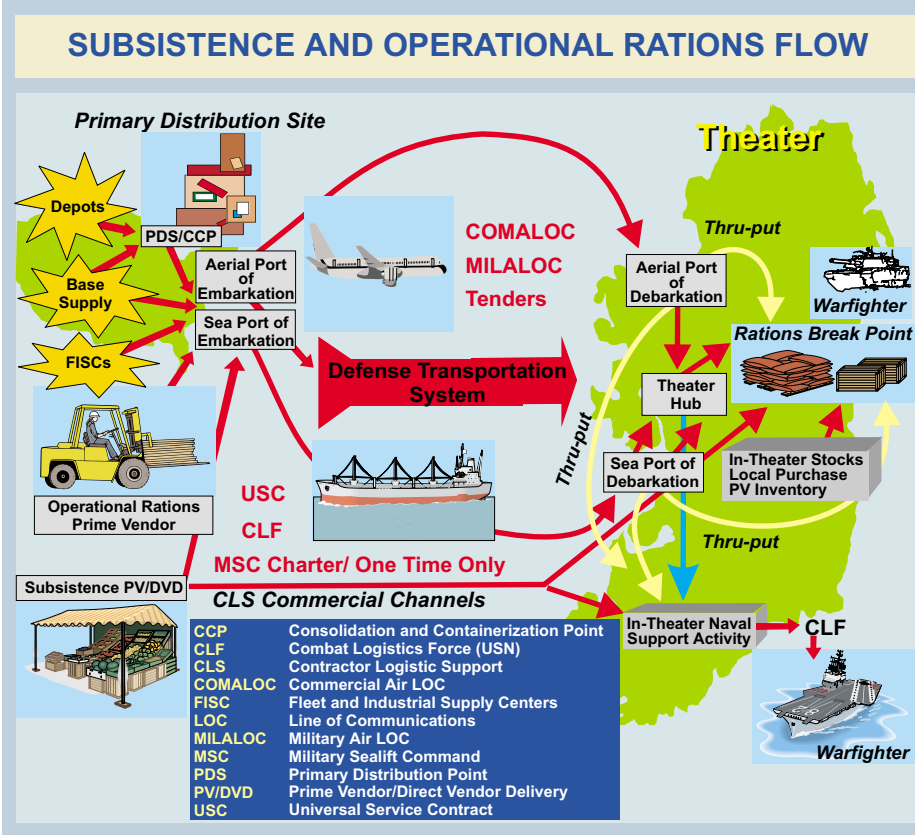


Figure IV-2. Subsistence and Operational Rations Flow

is in accordance with all international laws and DOD directives.

- **Customs.** Class I stocks distributed to overseas locations may be subject to HN agricultural requirements and care must be taken to avoid offending cultural sensitivities in areas where specific animal products are prohibited. Some Class I materiel are potential OCONUS "black market" demand items and will require appropriate controls. All Class I materiel entering the United States that has landed on foreign soil or originated from foreign sources, is subject to USDA inspection to safeguard against potential plant or animal infestations entering the United States.

- **Water. Potable water is a subclass of Class I that merits specific mention.** Water is normally obtained in theater in nonpotable form and is then converted to acceptable drinking water standards through various distillation, purification, and treatment techniques. Land forces rely on organic tactical water purification capabilities, construction of water supply, and distribution and treatment facilities, or may be able to use reliable HN sources that meet purity and quantity requirements. Bottled water is a relatively recent introduction to military operations. **Requirements for bottled water are determined by the Service components and the supported combatant commander based on the**

operational and environmental conditions encountered during joint force operations. When there are requirements for bottled water, commercial sources in the operational area that have been veterinary approved can be accessed through local procurement action or DSCP can provide procurement on a regional basis. Bottled water is distributed through Class I channels or in accordance with the supported commander's distribution concept. Naval vessels have organic distillation capabilities that meet normal crew and machinery requirements. During in-port periods, ships may require supplemental shore-source water to allow distilling machinery maintenance or to augment organic water production. Appendix 2, "Water," to Annex D, "Logistics," of theater OPLANs covers theater-wide water requirements, resupply, and distribution.

b. **Class II — Clothing, Individual Equipment, and Tools.** Class II is composed of organizational clothing and individual equipment, such as tentage and individual weapons; consumable items such as tools and administrative and housekeeping supplies; and industrial supplies such as cable, rope, screws, and bolts. **Class II contains the widest array of different items in a single supply class.**

- **Requirements Determination and Stocking Policy.** Service requirements for Class II are **primarily driven by historical demand and traditional planning factors that consider the size of forces, type and duration of the operation, and the environment**. DSCP and GSA are the primary materiel managers for Class II items, with some Service-specific materiel managed by the individual Services. Combatant commanders and Service components specify certain stocks of Class II materiel to be available for immediate access at the operational and tactical levels. These theater stock levels establish minimum retail level inventories and theater distribution concepts. **Class II stocking policy varies significantly between different commodities.** Items made specifically to Service specifications, with limited commercial alternatives such as organizational clothing, individual equipment, and tentage, must be stocked or have assured availability in adequate quantities to meet contingency requirements. **Chemical protective clothing, for example, is a significant operational concern** requiring a distribution capability to outfit deployed forces immediately from consumer-level inventories or DOD stocks. Common hardware and industrial supply items, conversely, are readily available in the commercial marketplace, encouraging a shift from DOD stockage to vendor support arrangements.

- **Acquisition and Procurement.** With the introduction of government and commercial Internet-enabled ordering systems, wholesale and retail inventory has been reduced and local self-service stores are being replaced by DVD arrangements. **The Department of Defense has withdrawn from the direct materiel management and ownership of many subclasses of Class II materiel.** Vendor support arrangements are now in use for clothing, general maintenance materiel, metals, and food service equipment. Additionally, through use of the International Merchant Purchase Authorization Card, many Class II items may be procured locally, reducing the transportation burden in support of joint forces.

- **Requisition Process.** Class II items are requisitioned using military standard requisitioning and issue procedure

(MILSTRIP) procedures, with a growing number of direct or indirect electronic ordering arrangements resulting from vendor support arrangements.

- **Physical Distribution and Transportation.** The inclusion of numerous Class II items in PV and DVD procurement arrangements has significantly reduced DOD-owned and distributed Class II inventories. Physical distribution of Class II items usually employs either DVD methods or defense depots in conjunction with the DTS system to connect to the theater distribution system or to the end user.

- **Retrograde and Return.** Because Class II items are generally low cost or bulky, a key retrograde consideration is the economic trade-off of in-theater disposition vice movement back to CONUS. General guidance is to consume or transfer Class II items instead of returning them to CONUS. Class II consumables are used by most military units and are typically a prime candidate for cross-leveling.

- **Disposal.** Some Class II materiel may require demilitarization prior to acceptance by DRMS for disposal. Special care must be taken by Service component generators of excess and DLA disposal personnel to ensure that demilitarization requirements are met for prescribed items prior to disposal.

- **Environmental Considerations.** Class II items may contain constituents (such as solvents, pesticides, and impregnates) classed as hazardous or toxic by US, HN, and international authorities and that require special handling and documentation. They must be moved, used, or disposed of by proper procedures to prevent harm to human health and the environment. These considerations include disposal through the DRMS and servicing DRMO to prevent health hazards and ensure that disposal is in accordance with all international laws and DOD directives.

- **Customs.** Class II materiel reentering the United States that has touched foreign soil or originated from foreign soil is subject to USDA inspection to safeguard against potential plant or animal infestations entering the United States. This restriction is especially pertinent to tentage. Commanders and commodity managers are encouraged to arrange for agricultural inspection of large quantities of any commodity prior to shipment back to the United States. Procedures for requesting agricultural preclearance are outlined in the DOD Directive 4500.9R, *Defense Transportation Regulation* Part V, DOD Customs/Border Clearance Policies and Procedures.

- **Redeployment.** At the unit level, lost, damaged, or destroyed Class II materiel may be reconstituted in theater prior to redeployment. Class II materiel also is a prime candidate for transfer to HN or allied forces at the conclusion of operations.

c. **Class III — Petroleum, Oils, and Lubricants (POL).** Class III includes bulk and packaged POL; hydraulic and insulating oils; preservatives, bulk chemical products, coolants, deicing and antifreeze compounds, and components and additives of such products; and liquid and compressed gases, natural gas, coal, and electricity. Bulk fuel, the major Class III commodity, is propulsion fuel for aircraft, ships, and vehicles. **Under the single fuel concept, primary fuel support for land-based air and ground forces in all theaters shall be accomplished using a single kerosene-based fuel as approved by the combatant commander.** Packaged Class III items, defined as

containers of 55 gallons or less, are managed and distributed similarly to Class II items except for the specific safety and environmental requirements necessitated by particular products.

- **Requirements Determination and Stocking Policy. The supported geographic combatant commander's Joint Petroleum Office (JPO) is responsible for the overall planning and execution of petroleum logistic support for joint operations within the theater.** At the strategic level, Class III requirements determination is focused on determining usage rates and planning factors. At the operational and tactical level, Service components apply these factors to determine requirements and develop and execute Class III distribution plans, arraying storage sites and distribution facilities and designating inventory levels within the theater to support apportioned forces and COAs. Appendix 1, "Petroleum, Oils, and Lubricants Supply," to Annex D, "Logistics" of theater OPLANs covers theater-wide fuel requirements, resupply, and distribution. The Defense Energy Support Center (DESC) regions and Service components support the JPO in developing practical, sustainable petroleum support concepts and plans. DLA is the materiel manager for Class III items, and executes these responsibilities through the DESC for bulk POL and the DSCR for packaged POL.

  For more information, see JP 4-03, Joint Bulk Petroleum Doctrine.

- **Acquisition and Procurement.** Bulk petroleum acquisition and procurement has been a joint effort for over two decades, with the Military Services developing complementary tactical distribution systems and DESC providing products to the combatant commands and Services. Bulk petroleum is acquired from commercial sources as close to the customer as possible and distributed through a combination of government and contractor entities. DESC acquisition functions are divided between bulk fuels and direct delivery fuels. For bulk fuels, DESC acquires, manages, and transports JP-5 and JP-8 jet fuels, F-76 diesel fuel, motor gasoline, jet fuel additives, and bulk lubricants for CONUS and OCONUS use. For direct delivery fuels, DESC provides the Services and designated federal agencies worldwide with acquisition and management for ground, aviation, and ship propulsion fuels delivered directly to the customer from commercial vendors.

- **Requisition Process.** Requisitioning bulk Class III products is a push system driven by expected consumption rates and inventory reporting. **At the tactical level, obtaining bulk fuel is an operational, as well as a logistic event.** Planners typically schedule refueling operations based on known fuel usage rates and vehicle, vessel, or aircraft fuel capacities.

- **Physical Distribution and Transportation.** Figure IV-3 illustrates the distribution flow of bulk petroleum products. **Petroleum distribution and transportation may occur through a variety of means.** DESC arranges transportation of refined petroleum products by pipeline, ocean tanker, barge, truck and rail car. Pipelines are used whenever possible because of their environmental safety, reliability, and low cost. They account for nearly half of DESC's worldwide fuel movement. Barges and ocean tankers provide distribution flexibility to deliver fuel to US forces deployed around the world.

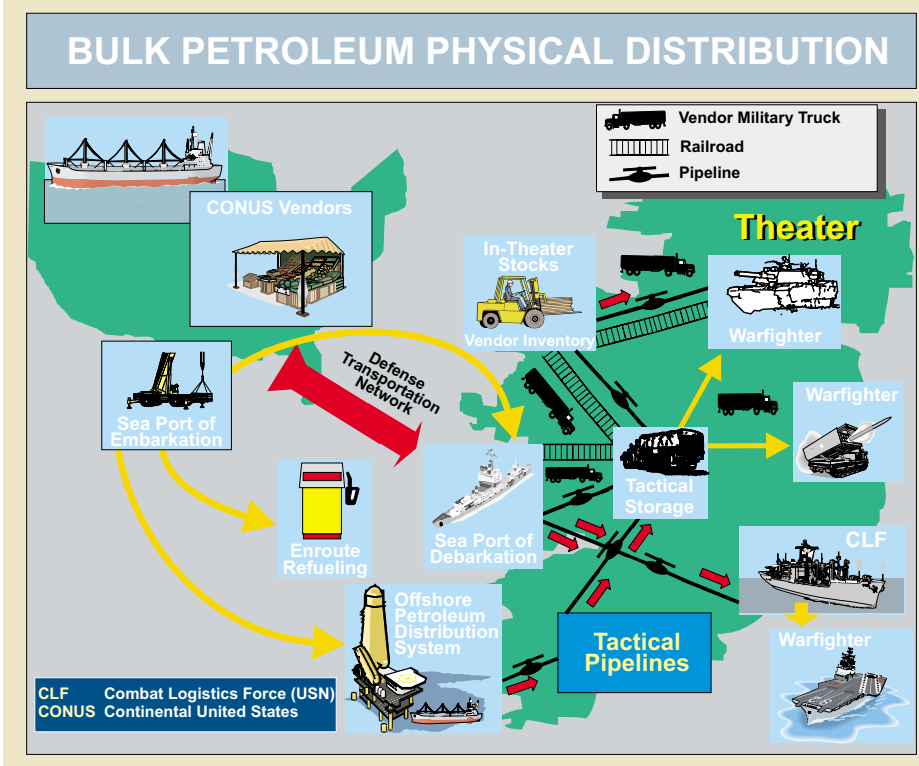


Figure IV-3. Bulk Petroleum Physical Distribution

Tankers and barges fulfill about half of the total DESC CONUS transportation requirements and the majority of OCONUS shipments. Ocean tankers are chartered and controlled by MSC to meet DESC scheduling requirements. DESC hands off distribution responsibility for bulk fuels at the theater level to the Service components. In-theater distribution of bulk fuels by Service components varies depending on the state of theater development. For end-use naval forces, fuel distribution is typically the same, regardless of theater development. CLF oilers or multi-commodity resupply ships refuel joint force naval units during underway replenishment operations. Naval vessels may obtain fuel supplies from sources ashore under DESC direct delivery contracts. The state of theater development and operational considerations will determine which fuel resupply ports are available as well as their fuel transfer capabilities. For land-based forces, the state of theater development has a more pronounced effect on distribution of bulk fuels as discussed below.

•• **Developed Theater. In a developed theater, established infrastructure supports the supply and distribution of bulk fuels.** Procedures to accomplish delivery of products to the end user depend on product sources and conditions in the operational area. Developed theaters may have HNS arrangements for fuel sources, terminal facilities, pipelines, railways, and trucks to offset requirements for organic Service component capabilities. The JPO is responsible for assessing potential capabilities and integrating them into appropriate plans and operations. A fully

developed theater fuel distribution system includes ship discharge ports (with moorings and piping manifolds), seaside and inland tank farms, pump stations, and pipelines. Large-scale combat operations may require the use of tactical pipelines using the Army's inland petroleum distribution system (IPDS) to move bulk petroleum from rear area storage locations forward to the combat zone. Air bases and Service beddown sites are also serviced by pipeline systems when tactically feasible. The pipeline system may be supplemented by other means of organic bulk delivery, such as trucks and aircraft.

•• **Undeveloped Theater.** The integration of strategic, operational, and tactical level distribution for bulk fuels in an undeveloped operational area may require special capabilities. Operational tankage, on-hand product, road nets, rail lines, and easily traversed LOCs normally are not available. Bulk petroleum may need to be received via joint logistics over-the-shore (JLOTS) operations. Such operations use various combinations of the offshore petroleum discharge system (OPDS), maritime pre-positioning ships (MPSs), amphibious assault fuel system (AAFS), and IPDS. The OPDS, MPS, or AAFS deliver fuel to tactical storage located immediately ashore and operated by a Marine Corps bulk fuel company, Army pipeline and terminal operating unit, or Army petroleum supply unit. Air Expeditionary Force bare base fuel requirements may be met on a limited basis by air-transported fuel using the aerial bulk fuel delivery system. IPDS is the preferred method to supply forward air bases and forward combat divisions in an undeveloped theater.

For information on JLOTS, see JP 4-01.6, Joint Tactics, Techniques, and Procedures for Joint Logistics Over-the-Shore (JLOTS).

- **Retrograde and Return.** Theater inventories of bulk Class III stocks are controlled by the JPO and will be redistributed or disposed of at the conclusion of operations. Return of Class III products to stock must include provisions to ensure that returned materiel still meets quality standards.

- **Disposal.** Excess and waste Class III products require disposal by trained personnel. This task is normally performed in coordination with Service component generators by DLA disposal personnel and DRMS licensed contractors by arrangement with DRMS and the appropriate HN authorities.

- **Environmental Considerations.** Bulk and packaged Class III items can be problematic from an environmental and safety standpoint because of international, HN, and/or US legal requirements. The majority of Class III products are liquids with varying degrees of flammability and must be stored in leak-proof containers or tanks at all times. Spills of Class III products require environmental cleanup response. In addition, ozone depleting substances, such as certain bottled gases, are subject to special environmental restrictions.

- **Redeployment.** In general, Class III stocks should be consumed or transferred prior to redeployment. Class III stocks that accompany redeploying units may be transported as part of unit equipment by the DTS. Vehicles and engine-powered equipment containing Class III materiel may require special preparation (drain or significantly reduce fuel and lubricants) and certification prior to air or sea shipment.

d. **Class IV — Construction Materiel.** Class IV includes all construction raw materials and fortification and barrier items such as lumber, wire, and sandbags. **Class IV items are used for force protection, facility construction, and maintenance by military civil engineering forces or contractor construction firms.** While many Class IV items are commonly available on the in-theater commercial market, some items, such as construction lumber and plywood, may be scarce or prohibitively expensive in some geographic areas. In addition, joint forces may be in competition with HN users for the same common items.

- **Requirements Determination and Stocking Policy.** At the strategic level, requirements determination is primarily a function of determining consumption rates and planning factors. **Combatant command engineer staffs prepare civil engineering support plans (CESPs) (Appendix 6, "Civil Engineer Support Plan," to Annex D, "Logistics," of theater OPLANs) as part of the JOPES planning process.** The CESP ensures that essential civil engineering capabilities are identified and will be available at the appropriate times to support the mobilization, deployment, employment, sustainment, and redeployment of the joint force in support of joint operations. **The CESP establishes theater-level requirements for facilities and civil engineering capability in support of deployed US forces.** The CESP also indicates significant out-of-theater requirements by general type and gross tonnage. The Joint Engineer Planning and Execution System is used to support the combatant command engineer and staff in development of the quantitative aspects of civil engineering support planning and provides the general requirements for the CESP appendix to an OPLAN. Civil engineering materiel planners and the supporting distribution system must be able to rapidly identify, source, and deliver Class IV items on a just-in-time basis. Collection and analysis of engineering intelligence is a critical step in this process. At the operational and tactical level, Class IV materiel requirements are driven by specific operational requirements and combatant command construction policies such as troop housing standards. From a strategic perspective, most Class IV materiel is

Class IV materiel is a high demand commodity during most joint force operations because of its use in the construction of temporary housing facilities and force protection measures.

readily available commercially, and for those items that are not, DSCP maintains depot inventory. Combatant commands and Service components develop theater stocking levels and distribution concepts for Class IV items based on these considerations and echelon materiel in theater for subsequent distribution and use. Where applicable, certain contingency stocks are maintained within DOD ownership, such as limited lumber and plywood stocks held in some theaters.

For more information, see JP 4-04, Joint Doctrine for Civil Engineering Support.

- **Acquisition and Procurement.** DLA is the wholesale materiel manager for construction materiel and executes this responsibility primarily through DSCP. Raw material for specific construction projects is procured as needed for specific tasks. Vendor support arrangements have substantially reduced DOD-owned inventories and handling of Class IV materiel. The substitution of commercial vendor arrangements for traditional DOD stocking has improved the timeliness of delivery and the quality of the product delivered. DSCP tries to acquire or procure Class IV materiel as close to the point of need as possible. This reduces the amount of Class IV materiel moving through the global distribution system and benefits overall distribution support.

- **Requisition Process.** Class IV materiel is requisitioned via electronic ordering systems through PV or by using standard MILSTRIPs.

- **Physical Distribution and Transportation.** Where applicable, Class IV materiel is distributed and delivered directly by PV. Items stocked and distributed by the Department of Defense use traditional DTS transportation channels and established Service theater distribution channels. The theater distribution system will strive to throughput bulk Class IV materiel directly to using engineer forces, vice supply activities, to minimize handling. Another technique to speed throughput is for Class IV providing sources to configure loads to specific requirements. Because Class IV materiel is low cost and high bulk, Service component engineering and/or construction forces normally deploy with limited Class IV materiel in unit stocks, focusing instead on deploying construction capabilities, such as heavy equipment and construction tools.

- **Retrograde, Return, and Cross-Leveling.** Excess construction materiel is usually readily usable in theater and should be transferred to other military activities.

- **Disposal.** Usable Class IV generated as excess by Service components may be transferred to other US, HN, or multinational forces after being turned in with turn-in or transfer documentation (DOD 1348-1a) to DRMS for disposal action.

- **Redeployment.** Class IV materiel is often in high demand as a transfer or disposal sale item in-theater and is not normally redeployed to CONUS.

e. **Class V — Ammunition.** Class V materiel consists of munitions of all types; bullets and projectiles, bombs, explosives, land mines, fuzes, detonators, pyrotechnics, propellants, and their associated items.

- **Requirements Determination and Stocking Policy.** The Military Services and USSOCOM establish strategic munitions requirements to support acquisition programs that arm weapon systems and forces to perform to their

LUMBER SUPPORT IN OPERATIONS SUSTAIN HOPE AND JOINT GUARDIAN

Lumber support to Europe was traditionally provided through individual Defense Supply Center Philadelphia (DSCP) direct vendor delivery contracts awarded to suppliers in the United States that resulted in logistics response times exceeding 90 days. To accommodate the receiving activity, lumber was transported on flat racks and shipped through Defense Transportation System contracts. This method would not have been responsive in meeting the needs of the joint forces operating in Albania and would have proven to be costly and inefficient. Extended delivery times along with the associated costs necessitated the need to locate sources of supply in Europe. Sources were identified in Austria and various other locations in Europe to provide US grade lumber and plywood for direct shipment to joint forces to reduce the impact on strategic lift. Although the costs to procure lumber locally averaged approximately 10 percent higher than material purchased in the United States, the contract destination delivery terms drastically reduced logistic response times up to 90% and saved over ocean and second destination transportation charges. By leveraging the commercial infrastructure already in place, DSCP provided nearly 1740 truckloads of lumber in record time at an estimated Department of Defense savings of $8 million. Use of these commercial distribution channels reduced the impact on already constrained military distribution capabilities and the limited host nation infrastructure that US forces had to share with international relief entities. Better visibility and coordination of deliveries could have improved reception operations as the Class IV materiel was delivered to tactical level supply activities in theater. However, commercial distribution channels met the timelines specified by the supported commander. This process reduced the military logistic footprint and allowed scarce military transportation and transportation management resources to focus on other operational and deployment missions.

SOURCE: Defense Supply Center Philadelphia

designed military capability. Appendix 7, "Non-nuclear Ammunition," to Annex D, "Logistics," of theater OPLANs covers theater-wide ammunition requirements, resupply, and distribution.

•• **Class V requirements are determined through the capabilities-based munitions requirements process.** This process addresses the operational objectives of the combatant commanders against potential threats, considers distribution capabilities, and retains capacity for residual readiness of forces at the conclusion of operations. Strategic and operational munitions requirements are established during combatant command planning. Service on-hand munitions assets normally do not equal total strategic requirements, consequently, the essential element in Class V management is the ability to prioritize requirements and shift assets to meet critical needs.

•• Class V items are managed through a combination of joint and Service materiel managers. The US Army is the single manager for conventional ammunition (SMCA) and executes this responsibility through the US Army Material Command Operational Support Command (OSC). The SMCA manages such items as small arms, mortar, artillery,

and naval gun ammunition; bombs; unguided rockets; land mines; grenades; flares and pyrotechnics; and component items such as explosives and propellants. The Military Departments manage Service-unique-items such as guided missiles, rockets, mines, torpedoes, and guidance kits for bombs.

- **Acquisition and Procurement. Class V is the single commodity class for which the Department of Defense maintains a significant manufacturing capability.** Items may be procured from commercial sources, produced at government-owned, government-operated (GOGO) facilities, or produced at government-owned, contractor-operated (GOCO) facilities. In addition, the production process may be divided between commercial component production and assembly at a GOGO or GOCO installations.

- **Requisition Process.** Units requisition or request Class V from in-theater sources in accordance with established Service procedures. Units are normally limited to a specified allowance, or basic load, based on unit mobility and storage constraints. Service components establish basic load criteria for units based on weapons type and density and expected mission requirements. **A nuance of Class V distribution is that munitions requisitioning is validated against anticipated training or operational requirements.** This validation function is performed by Service operations staffs in conjunction with ammunition materiel managers. During operations, adjustments to unit basic loads may be required based on the availability of certain types of munitions or staff estimates of specific mission requirements. For example, US Army planners determine a required supply rate (the amount of ammunition a commander estimates will be needed to sustain proposed tactical operations, without ammunition expenditure restrictions, over a specified period of time) for critical munitions. This estimate is balanced with the realities of limiting factors, such as inventory levels and lift availability, to arrive at a rate of supply that will ensure the continuous availability of critical munitions for the duration of operations or until munitions availability improves. Consequently,

Ammunition is the one commodity for which the government maintains a significant manufacturing capability.

Army component commanders may direct distribution of available critical ammunition assets among subordinate forces regardless of need through the establishment of a controlled supply rate (CSR) that will control the actual allocation of ammunition by item to subordinate units for the time specified. This CSR will vary from unit to unit and will change over time with shifts in Class V distribution flow and operational events.

- **Physical Distribution and Transportation.** Class V, more than any other class of supply, **may consume physical distribution and transportation resources at the expense of other distribution missions because of the criticality of the commodity** (see Figure IV-4). Transportation, storage, and handling of Class V presents significant challenges and expense due to the safety and security considerations inherent in handling munitions. The SMCA operates CONUS joint service storage facilities that receive, store, maintain, issue, and demilitarize Class V items, whether SMCA- or Service-managed. The Services also operate munitions storage facilities in CONUS and OCONUS to support worldwide operations. Storage facilities for munitions require specially constructed storage shelters, significant physical security, transportation access and, most importantly, sufficient real estate to implement munitions safety considerations. Selected munitions for Army, Marine Corps, Navy, and Air Force components also are stored aboard pre-positioning ships to provide a rapid distribution response to worldwide contingency requirements.

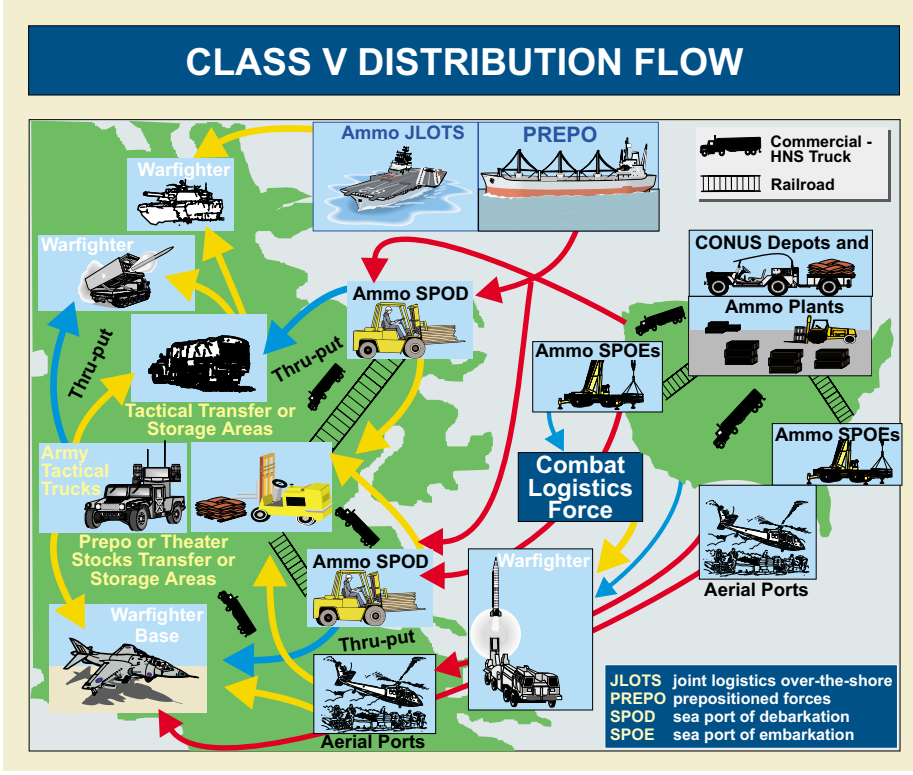


Figure IV-4. Class V Distribution Flow

•• Transportation of munitions is a demanding process that requires coordination and compliance with numerous authorities and regulations. During contingency operations, OSC serves as the joint munitions transportation coordinating activity (JMTCA) for planning, coordination, and execution of actions for munitions moving aboard common user sealift. The JMTCA consolidates all Service munitions requirements, both SMCA and non-SMCA, into movement plans designed to provide ammunition managers with advanced shipment-planning visibility. Inventory management strategy directs that some high-value munitions are transported from the strategic to the operational level exclusively by airlift. Movement of ammunition will always represent a critical safety concern for the JFC and the HN. **One critical requirement of ammunition movement planning is the detailed, end-to-end assessment of net explosive weight (NEW) capacity at every node in the distribution chain.**

•• At the operational and tactical levels, physical distribution of munitions is conducted by Service component units with specialized capabilities for munitions storage, maintenance, and transportation. For land-based forces, the combatant commander may designate a lead Service for Class V distribution, under the CUL option and based on the dominant user and/or most capable Service. For afloat forces, munitions distribution functions are conducted by Navy CLF ships using underway replenishment methods.

- **Cross-Leveling.** The most common Class V cross-leveling program is the annual DOD stratification of conventional ammunition. Each Service provides ammunition inventory information to the other Services, including USCG and USSOCOM. Services having shortfalls may request transfer of excess ammunition from the holding Service. Cross-leveling at this strategic level is advantageous to both parties, avoiding demilitarization costs for the donor and procurement costs for the recipient. Operational cross-leveling is done under the combatant commander's directive authority for logistics. **Small arms munitions and selected pyrotechnic devices are normally considered appropriate for consideration for crossleveling;** however, additional common-user opportunities **may be possible for other Class V items such as artillery rounds, tank rounds, aircraft missiles, and general-purpose bombs.** In all cases, **extreme care must be exercised in cross-referencing requisition data to ensure that the correct munitions are requisitioned.**

- **Retrograde and Return.** Class V items require routine maintenance and certification as ready for use. These actions are conducted at munitions storage sites, but also may be conducted by trained personnel in theater. Class V items are usually moved back to authorized storage facilities following contingency operations. Materiel managers may use this return process as an opportunity to cross-level inventories or dispose of old munitions stocks.

- **Disposal.** Class V disposal is subject to stringent safety and security restrictions including Service component demilitarization requirements. Demilitarization encompasses a wide range of processes including disassembly, resource recovery and reuse, and treatment of ordnance materials for disposal. Munitions demilitarization is conducted at a

designated military demilitarization site. The US Army is the primary Service responsible for the demilitarization of military munitions.

- **Environmental Considerations.** Class V is a significant environmental hazard due to the explosive nature of the commodity and the physical and chemical properties of some munitions components. Munitions must be stored, transported, and handled only by qualified personnel, using the appropriate equipment and following all applicable safety regulations. These considerations include disposal through the DRMS and servicing DRMO to prevent health hazards and ensure disposal is in accordance with all international laws and DOD directives.

- **Redeployment.** Depending on the nature of redeployment operations, Class V items may be redeployed as part of unit basic loads. At the conclusion of operations, units will gather all Class V stocks, repackage, and return those stocks to their servicing ammunition handling organizations for redistribution or storage for future use. Bulk stocks are returned to munitions storage sites in CONUS or OCONUS or may be redistributed among theaters.

f. **Class VI — Personal Demand Items.** Class VI materiel includes various nonmilitary health, comfort, and recreational items procured and managed by the Service exchanges: AAFES, NEXCOM, and the MCX, as well as Service morale, welfare, and recreation organizations.

- **Requirements Determination and Stocking Policy.** Although the various military exchange services operate worldwide retail programs for CONUS and OCONUS military installations, joint force deployments are typically to areas without such facilities. Each of the three exchange systems has deployable resale outlets that can deploy to support joint forces upon request of the supported combatant commander. **The supported combatant commander will determine the requirement for Class VI outlets in the theater and set the level of desired Class VI service** (i.e., basic necessities and/or recreation merchandise). Service component exchange services will deploy the required resale capabilities and establish Class VI stock levels to meet the supported combatant commander's guidelines. Within these requirements, stocking decisions are made by the exchange services based on predicted customer demand in a given deployment scenario. Inventories to support deployable exchange units are obtained from existing exchange system stocks in CONUS and OCONUS or from commercial sources as necessary.

- **Acquisition and Procurement.** Military exchange system procurement uses nonappropriated funds and is outside the scope of conventional DOD appropriated fund procurement practices.

- **Requisition Process.** Deployable military exchange outlets order Class VI materiel from the parent Service exchange system using commercial methods. When multiple deployable exchanges are operating in a single theater, they may coordinate merchandise orders.

- **Physical Distribution and Transportation.** Exchange merchandise is distributed via a variety of channels, military and commercial, based on cost and performance. During contingencies, the DTS may be heavily tasked to provide Class VI transportation service to joint force operational areas.

- **Disposal.** Class VI materiel is not turned into DRMS for disposal unless required by SOFAs or other HN agreements.

- **Customs.** Movement of Class VI merchandise into and through other countries may require agreements with the appropriate national authorities. The potential for "black market" activity in some countries may require rationing or other control mechanisms to satisfy HN requirements. Additionally, the supported combatant commander should ensure that Class VI merchandise restrictions resulting from HN cultural constraints are included in Class VI planning and communicated to the appropriate military exchange organizations.

g. **Class VII — Major End Items.** Class VII is composed of the major warfighting equipment that constitutes the combat forces. Class VII includes ships, aircraft, missiles, tanks, launchers, and vehicles that are normally procured by the individual Service acquisition commands as a part of major acquisition programs.

- **Requirements Determination and Stocking Policy.** Class VII items are programmed and procured in accordance with long range requirements as part of major Service and USSOCOM procurement programs executed by designated program offices within the Service and USSOCOM acquisition commands and/or centers. Major end items having multiservice applications are managed by a single Service program office for the entire DOD community. **Class VII items are capital assets of the Services and are not typically "stocked" as wholesale items for routine issue to requisitioning activities.** War reserve stocks of Class VII materiel are managed by Service program offices as insurance items and are outside the scope of routine DOD item management processes. At the operational and tactical level, Service components determine the quantity and location of Class VII replacements needed to maintain operational readiness consistent with mission requirements.

- **Acquisition and Procurement.** Acquisition support for Class VII items focuses on product improvement and support initiatives that affect life cycle support. Initial acquisition of Class VII materiel may include provisioning initial Service investments in Class IX repair parts, as interim support for new weapon systems.

- **Requisition Process.** Class VII items are not stocked for routine issue; consequently, requisitioning replacements for major end items is often a specialized process requiring coordination with maintenance authorities, program offices, and Service headquarters.

- **Physical Distribution and Transportation.** Class VII items not in operational use are stored at Service maintenance or storage sites in CONUS or OCONUS. These items may be part of afloat or ashore pre-positioning stocks. Transportation of Class VII items requires special packaging and preservation, special shipping containers, and may require dedicated or oversized transportation assets. In-theater reception of Class VII materiel must account for any specialized unloading facilities, ground transportation capabilities, and the necessary maintenance capabilities to install or exchange the item from the affected weapon system. Replacement of some weapons systems will include packaging of crews, fuel, and ammunition under a weapons system replacement operations concept.

- **Retrograde and Return.** Reparable Class VII items are returned to maintenance for overhaul or repair. Because of the limited number of operational spares, timely retrograde of damaged items and repair is critical to maintain Service force readiness levels.

- **Disposal.** Class VII reparable assets should not be surveyed and transferred to disposal activities without specific approval from the program or materiel manager. In some instances, such as vehicle or aircraft accidents, engineering and safety investigations may require resolution prior to disposal. Demilitarization actions must be coordinated with DRMS prior to transfer to disposal.

- **Customs.** Arrangement for agricultural inspection is recommended prior to large shipments back to CONUS. Procedures for requesting USDA pre-clearance and cleaning prior to shipment are outlined in DOD Directive 4500.9R, *Defense Transportation Regulation*, Part V, "DOD Customs/Border Clearance Policies and Procedures."

- **Environmental Considerations.** Class VII items may contain fuel, ammunition, or other hazardous material when configured for operation. Storage and shipment of such items must consider these hazards and include the appropriate download and transfer of hazardous material for authorized storage or disposition that may require special handling and documentation. Additionally, Class VII items exposed to nuclear, biological, and chemical effects must be surveyed for residual contamination risks. This contamination risk could include potential vapor hazard and contact hazards. These risks increase as residually contaminated equipment is consolidated and personnel work around this equipment for prolonged periods of time. These considerations include disposal through a DRMS and servicing DRMO to prevent health hazards and ensure that disposal is in accordance with all international laws and DOD directives.

  For additional information on environmental considerations for contaminated equipment, see JP 3-11, Joint Doctrine for Operations in Nuclear, Biological, and Chemical (NBC) Environments.

- **Redeployment.** Class VII items typically redeploy with units at the end of operations. Some items have the capability to self-deploy and redeploy, as in the case of ships and aircraft, while other items require strategic lift to redeploy. Class VII items that were drawn from pre-positioned stocks, such as pre-positioning of materiel configured in unit sets or afloat pre-positioning stocks, are typically refurbished and returned to the pre-positioned storage site at the conclusion of operations.

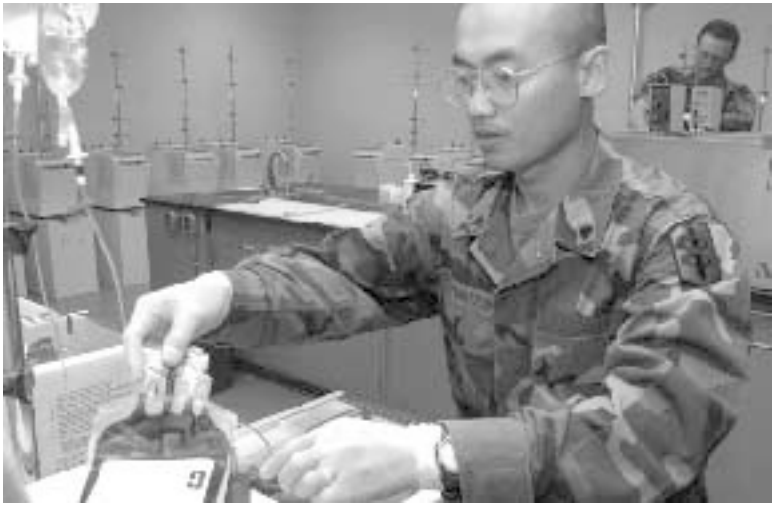
h. **Class VIII — Medical Materiel.** Class VIII consists of pharmaceutical, medical and surgical supplies and materiel, and medical equipment, including medical-specific repair parts, medical gases, blood, and blood products. Class VIII items are used by medical and dental personnel to perform patient treatment and provide other health service support (HSS) at medical treatment facilities (MTFs) and other military medical units, such as Navy fleet hospitals and hospital ships; forward surgical teams; combat support hospitals; and Air Force Expeditionary Medical support and Air Force Theater Hospitals.

- **Requirements Determination and Stocking Policy.** Deployable Service medical units maintain stocks of medical

equipment and supplies in accordance with predetermined allowance lists calculated to provide materiel support for medical eventualities expected at the particular level of treatment. DOD-wide requirements for Class VIII materiel are coordinated by the Joint Requirements Clinical Advisory Board. DSCP is the materiel manager for Class VIII items minus blood products and certain vaccines. At the operational and tactical level, Class VIII requirements planning is based on the combatant commander's concept of operations and takes into consideration the composition of forces and expected health threats from combat action and disease. Annex Q, "Medical Services," of OPLANs covers theater-wide medical requirements, resupply, and distribution.

•• **Vendor Support.** Inventory managers and MTFs are required to maintain adequate stocks, yet at the same time avoid overstocking and subsequent shelf-life expiration. Consequently, DOD-maintained inventories are kept to a minimum with most materiel provided through vendor support programs.

•• **Blood Programs.** Class VIIIB, blood and blood products, is a specially managed commodity of the medical supply system. Blood is live tissue and, as such, requires handling by individuals specially trained in blood movement and storage. Accordingly, Class VIIIB materiel is handled by a unique end-to-end distribution program. **The Armed Services Blood Program Office (ASBPO) is responsible for the coordination of the blood programs of the Military Services and the combatant commands.** The Armed Services Blood Program provides an orderly system for collection, storage, and distribution of blood products across the range of military operations. Blood is obtained from Service members, dependents, and civilian employees who donate blood at major military MTFs. The primary responsibility of the ASBPO is to ensure that blood products, in the required types and amounts, reach the theater in a ready-to-use condition. Each theater has a standard, jointly operated blood distribution system. A joint blood program office (JBPO) is established within the joint force surgeon's office.



Blood and blood products are live tissue that require special handling and distribution techniques.

The JBPO is the single manager for blood products in the combatant command and is responsible for management and coordination of the total joint blood product requirements and capabilities in the theater. Each theater is subdivided and coordinated by an area JBPO. Blood transshipment centers (BTCs), operated by the Air Force, are established in each theater and are located at major airports. The BTCs serve as the central receiving point of blood products from CONUS for distribution within the theater. Blood is provided to Service component blood supply units and, in turn, distributed to each MTF.

For more information, see JP 4-02, Doctrine for Health Service Support in Joint Operations.

- **Acquisition and Procurement.** Class VIII materiel has traditionally been a difficult and expensive commodity to distribute within the Department of Defense. The urgent and demanding nature of customer requirements coupled with shelf life, special handling, and security considerations of medical materiel required high just-in-case inventory levels, special depot handling, and significant transportation expense. To overcome these challenges and improve distribution responsiveness, **the Department of Defense has shifted the majority of peacetime Class VIII distribution to PV support**. The PV is a single distributor of commercial, brand name supplies for customers in a specific geographic region in both CONUS and OCONUS. Surge requirements and theater resupply are addressed by acquisition initiatives such as surge clauses in PV contracts and several government and industrial arrangements which minimize DOD distribution costs while guaranteeing availability in contingency situations. Contracts for stock rotation are awarded using Service and DLA funds and are retained in contractor custody until needed, avoiding shelf-life losses. Vendor managed inventory (VMI) arrangements ensure guaranteed access to critical Class VIII items for a small percentage of the total materiel cost. At time of need, the Department of Defense executes the actual procurement contract and takes physical delivery of VMI materiel.

- **Requisition Process.** MTFs order PV pharmaceuticals and medical and surgical supplies using direct electronic ordering methods that link Service or joint MTF Class VIII management systems with PV interface systems. Navy ships use a modified PV process that converts standard MILSTRIP requisitions into PV orders, forwards materiel to a consolidation point for marking and repackaging to meet shipboard requirements, and delivers materiel via DTS shipments. Non-PV items are requisitioned using Service MILSTRIPs. Class VIIIB items are requisitioned separately within the ASBPO system.

- **Physical Distribution and Transportation.** PV distribution channels support the bulk of peacetime DOD pharmaceuticals and medical and surgical supply distribution. OCONUS MTFs receive Class VIII materiel from CONUS vendors transported by DOD-contracted commercial air package service. Despite the shift to PV support in many areas, the depot system remains an essential part of Class VIII readiness. Depots, acting as freight consolidation points, insert materiel into the DTS, provide an interface with the customer MILSTRIP requisition processes, and serve as an assembly point for medical kit items. It is a Service component's responsibility to provide Class VIII distribution support to its own forces.

However, the combatant commander may exercise directive authority over the joint Class VIII system by designating a single integrated medical logistics manager (SIMLM). The SIMLM mission, when tasked by a supported combatant commander, specifies that Class VIII sustainment be provided and managed by a single organization or Service component operating in a theater. The SIMLM mission, roles, and responsibilities for supporting joint forces must be clearly identified during planning.

Further information on SIMLM is in JP 4-02.1, Joint Tactics, Techniques, and Procedures for Health Service Logistics Support in Joint Operations.

- **Retrograde and Return.** In general, medical equipment is no longer repaired in theater. The rapid return of reparable Class VIII medical equipment to repair facilities is critical to returning the item to the supply system or back to its original owner.

- **Disposal.** Disposal of Class VIII items must be carefully monitored and coordinated with Service component HSS authorities. This is especially important because of the sensitivity and health risks associated with the materiel. Expired non-radioactive and unusable medical supplies are disposed of through DRMS activities.

- **Environmental Considerations.** Class VIII items have associated medical considerations that must be addressed to ensure that no impact is made on the environment. These considerations include proper disposal through a DRMS and servicing DRMO to prevent health hazards and ensure that disposal is in accordance with all international laws and DOD directives.

For additional information on environmental and disposal considerations for medical waste, see DOD Publication 4715.5-G, Overseas Environmental Baseline Guidance Document (OEBGD), *Chapter 8, "Medical Waste Management."*

- **Customs.** Foreign source medicine is prohibited from entry into the US by Food and Drug Administration regulations. In the event that foreign source items are provided in contingency situations, they must be redistributed or disposed of OCONUS prior to unit return.

- **Redeployment.** Units reconstitute and redeploy with full stocks of Class VIII materiel when feasible.

i. **Class IX — Repair Parts.** Class IX includes all repair parts, except medical equipment parts. **Each Service unit deploys with an allowance of Class IX materiel calculated to support unit equipment repair, within the unit maintenance capability, for a predetermined period and operational tempo.** Higher echelon maintenance units possessing more comprehensive maintenance capabilities stock a greater allowance of repair parts. Investment in consumer-level repair part inventories is a major Service operating expense. Efforts to reduce costs have resulted in decreased unit allowances based on revised maintenance strategies and/or improved methodologies for determining the optimum repair part inventory necessary to attain prescribed weapon system operational availability. The implication of reduced unit stock is increased volume and velocity demands on the global distribution system to support joint forces. Figure IV-5 is an overview process map for global distribution of Class IX materiel.

- **Requirements Determination and Stocking Policy.** Repair part

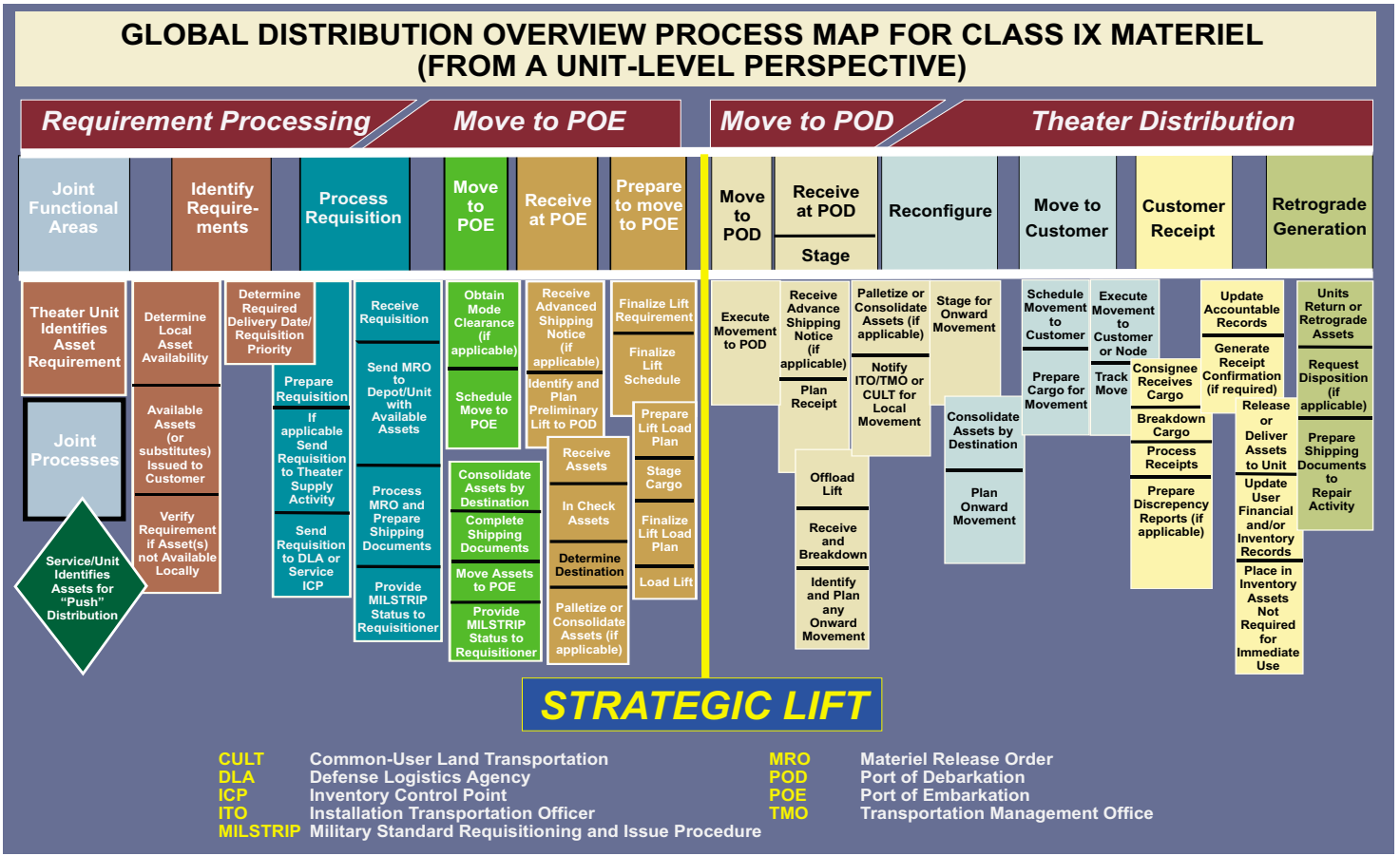


Figure IV-5. Global Distribution Overview Process Map for Class IX Materiel

requirements are based on unit allowances and predicted demands to resupply consumed inventory or obtain non-stocked items. **Repair parts consumption is closely related to the operating tempo of military forces.** Service and DLA wholesale inventory levels are calculated to support these resupply and non-stocked demands. These wholesale Class IX inventory levels are regularly adjusted based on actual demand by the DOD stratification process, resulting in changes to inventory quantities and locations. The Services have materiel management responsibility for depot level reparable items and major items and assemblies in their weapons systems, while DLA manages most consumable items. The Services' materiel management responsibilities for Class IX are executed through Service logistic commands and their inventory control activities. DLA materiel management responsibility for assigned Class IX items is executed through the DLA weapon system inventory control points. Operational and theater level requirements planning is based on operating tempo and associated consumption rates for Class IX items as calculated by Service allowance methodologies for days of operation, flying hours, or other pertinent employment factors that affect weapon system materiel readiness. Theater distribution plans may include specific Class IX stocking directions for critical or high usage items to be pre-positioned, or brought into theater, and staged at the appropriate operational or maintenance echelon to maximize weapon system availability.

- **Acquisition and Procurement.** Service and DLA ICPs use a range of procurement methods to satisfy the requirements for Class IX materiel. These range from large multi-product and multi-year contracts that supply distribution depot stocks, to emergency quick response purchases to satisfy emergent customer demands. Improvements to Class IX distribution support are primarily based on product support programs. These concepts affect the manner in which weapon system life cycle support is acquired and executed and may range from full organic Service support to total CLS. CLS support for a given weapon system may result in reduced uniformed maintenance and distribution support personnel and promote global distribution efficiencies as DOD inventories, transportation, and theater distribution requirements are replaced, in whole or in part, by commercial alternatives. These efficiencies must be weighed against the possible disruption of commercial support during wartime conditions.

- **Requisition Process.** Joint forces obtain Class IX items from unit stocks when available and requisition unit stock replenishment and items not carried using standard Service MILSTRIP procedures. A variety of forms and systems have been developed by the Services to facilitate this process, all of which interface with the defense and Service supply systems. Some weapon system programs maintain specialized materiel support arrangements that are outside of the standard DOD depot system.

- **Physical Distribution and Transportation.** Shipment of Class IX materiel is through standard DTS channels. DLA distribution depots perform local deliveries for customers located on the same installation. Shipments to customers outside the installation are made by commercial carriers. The mode of shipment is determined by a variety of factors to include the priority of the requisition and

the required delivery date (RDD), project code assignments and special Service directions. For high priority shipments outside of the geographic region, the fastest commercial or DOD air shipment means is used to get the materiel to the customer as quickly as possible. Shipments destined for OCONUS locations, dependent on priority, may go by surface or air. **The interface of Class IX strategic lift, both DTS and commercial, with operational and tactical distribution systems is critical to joint force materiel readiness.** Strategic level cargo consolidation offers opportunities to improve throughput to the operational and tactical level, with the trade-off being the time necessary to accumulate unit-specific cargo for consolidation prior to lift. In-theater reception and forwarding of high priority airlifted materiel to end-users must be resourced and operated with corresponding expediency whether using intratheater airlift or ground transportation to complete the final leg(s) of delivery. ITV is essential to manage Class IX materiel support with reduced unit and theater stockage. Figure IV-6 illustrates the flow of Class IX materiel.

- **Retrograde and Return.** Usable excess consumable items and all reparable items are reported to the cognizant materiel manager for return or disposition decisions. Reparable items are returned to the established overhaul point for repair and subsequent return to the global distribution system. Intensive programs have been established to monitor reparable issues and returns, simplify the return process, and create incentives for operating forces to minimize losses. Loss of a reparable component robs the system of a needed item and imposes additional time and cost to replace the lost item. ITV of retrograde reparable items is mandatory to minimize reparable item loss or delay.

- **Customs.** Procedures for requesting USDA pre-clearance and cleaning prior to shipment are outlined in DOD Directive 4500.9R, *Defense Transportation Regulation*, Part V, "DOD Customs/ Border Clearance Policies and Procedures."

- **Disposal.** Class IX items are transferred to DRMS for redistribution or disposal action as directed by materiel managers. Many Class IX items are Munitions List or Commerce Control List items requiring special disposal oversight. Coordination between DRMS and Service authorities is necessary to ensure that demilitarization requirements are met in theater. If in-theater disposal options are not viable, retrograde to CONUS may be required.

- **Environmental Considerations.** Most Class IX materiel does not present environmental risk. However, the packaging (such as plastics and corrugated cardboard) that contained this materiel must be addressed. The generated solid waste must be disposed of either by the HN, DRMS, or must be retrograded by Service components to an area in which environmentally sound processing may occur. Certain items may contain hazardous components, such as radioactive material. These items are identified in DOD and Service logistics information systems as special handling items and require special care in packaging, marking, storage, transportation, and disposal.

- **Redeployment.** Units reconstitute unit Class IX stocks, when feasible, prior to redeployment. Service components may cross-level critical Class IX items from

Figure IV-6. Consumable Items and Repair Parts Flow

redeploying units to other units to fill shortfalls.

j. **Class X — Materiel for Nonmilitary Programs.** Class X items support nonmilitary programs such as economic and agricultural development, civic action, and various relief and education programs. Class X also includes any items that are not included under other classes. **The provision of Class X items may be part of a formal program to foster international goodwill or may be in response to an emergent situation during joint operations.**

- **Requirements Determination and Stocking Policy.** Class X items for OCONUS joint force operations are determined by DOS representatives, often in conjunction with NGOs and Civil Affairs, to provide for the well being of the civilian population in designated areas. Many of these items are sourced and procured outside of the Department of Defense although certain Class I, II, and VIII items may be used in civil-military operations, as required. DSCA performs strategic requirements determination on behalf of the Department of Defense.

- **Acquisition and Procurement.** Class X materiel is outside of the scope of DOD procurement actions although some items

Class X materiel supports economic and agricultural development, civic action, and various relief and education programs and is normally procured outside normal DOD acquisition channels.

are specifically managed on behalf of other agencies. For example, humanitarian rations are procured and managed by DSCP in response to direction and funding provided by DSCA. DRMS also provides excess materiel to support various humanitarian assistance and disaster relief missions.

- **Requisition Process.** Class X requisitions are submitted by military civil affairs units using standard MILSTRIP methods. Class X requirements emanating from non-DOD organizations, such as the DOS, FEMA, or other authorized agencies may be passed to the Department of Defense through a variety of formal or informal methods for procurement, warehousing, transportation, and distribution on a case by case basis.

- **Physical Distribution and Transportation.** When approval is granted, DOD distribution channels may be used to consolidate and transport Class X materiel, including items provided by NGOs. These requirements are often high visibility, rapid reaction responses to FHA missions and may require close coordination to minimize the impact on simultaneous joint force requirements**.**

- **Retrograde and Return.** Class X items are not DOD-owned property and are expended at the point of transfer to the designated NGO or civil populace. Class X materiel is normally not returned once transferred to the designated recipient.

- **Customs.** Unlike military materiel, Class X items may be subject to HN customs regulations. Proper diplomatic and custom clearances are usually coordinated and processed by the DOS for Class X materiel shipments.

k. **Hardcopy Geospatial Information and Services Products.** GI&S products are vital to many military functions including navigation, mission planning, targeting, and analysis of the battlespace. **Hardcopy GI&S products include aeronautical and hydrographic charts, topographic maps, publications, and bulletins such as notices to mariners and flight information publications, and digital data sets on compact disc read-only memory [CD-ROM].** Although these products are traditionally part of Class II, their unique

distribution method warrants a separate discussion.

- **Requirements Determination and Stocking Policy.** Working closely with NIMA, the GI&S officer determines required products, both existing and new, and the availability of these products. Combatant commands and NIMA determine the priority for GI&S production to satisfy shortfalls. War reserve stocks, when established, are specified by combatant commanders and provided and maintained by DSCR at designated theater storage facilities. Basic unit GI&S loads are determined by the Services to support specific OPLAN and training requirements. These unit loads are the basis for routine distribution of GI&S products by DSCR to military units via automatic distribution accounts. Units may submit automatic distribution change requests based on mission requirements or other local factors. Strategic inventory levels of existing GI&S products, revision and reissue of these products, and development of new products is determined by NIMA and DSCR based on combatant command planning requirements, customer demand data, and demand generated from automatic distribution accounts. Annex M, "Geospatial Information and Services," to OPLANs covers theater-wide GI&S requirements, resupply, and distribution.

- **Acquisition and Procurement.** DSCR is the materiel manager for DOD GI&S products. These products are designed and produced by NIMA, other US Government (USG) or foreign government agencies, and commercial vendors. NIMA funds GI&S products and provides them free of charge to DOD and other authorized federal activities. While NIMA retains the responsibility for the bulk of DOD map and chart printing requirements, advances in printing technology have provided the means for deployed forces to produce low volume, full color hardcopy maps and charts. Local printing capabilities enable commanders to tailor standard data sets for specific missions and provide hardcopy output for use.

- **Requisition Process.** Hardcopy GI&S products are requisitioned from DSCR by DOD customers using either standard Service MILSTRIP methods or via a defense automatic addressing system (DAAS) Internet site. DOD customers with recurring needs, such as Navy ships, may establish an automatic distribution account with DSCR and receive automatic shipments of revised GI&S products without submitting additional requisitions. Each DOD GI&S requisitioning activity is required to maintain an up-to-date GI&S account data form on file with DSCR. Information on establishing and maintaining a DSCR account, as well as information on requisitioning procedures for all types of GI&S products, is available at http://www.dscr.dla.mil/pc9/. Because hardcopy GI&S products use a unique materiel management system to account for classified and special editions, national stock numbers, authorized user information, and to manage automatic distribution accounts, fully automated supply status reporting and interfaces with ITV systems are not currently available. Requisitioning activities may obtain status and shipping information by contacting DSCR via e-mail at pc9@dscr.dla.mil or telephone at 1-800-826-0342 and DSN 695-6500.

- **Physical Distribution and Transportation.** GI&S products are shipped from the production source to

DDMA in Richmond, Virginia, for storage and subsequent distribution to DOD customers. DDMA fills customer requisitions and provides automatic distribution of revised products to DOD subscribers. A network of DDMA CONUS and OCONUS map support offices (MSOs) provides dedicated GI&S support to combatant commanders and can coordinate emergency GI&S product issue. During contingencies, hardcopy products may be stocked in theater at regional map depots operated by the Services, combatant commands, or DLA. When directed, specified units will submit GI&S requisitions to these alternate sources vice DSCR. Maps and charts are shipped from DDMA to worldwide customers via methods ranging from USPS, to airlift, or sealift depending on requisitioning activities' RDD and shipment size and weight.

- **Disposal.** Maps and charts are discarded by end users when obsolete or no longer needed. DDMA, MSO, and end-user inventories must be purged of outdated maps and charts when new editions are available. Normal classified material restrictions apply to disposal of maps and charts, if appropriate.

For further information, see JP 2-03, Joint Tactics, Techniques, and Procedures for Geospatial Information and Services Support to Joint Operations.

l. **Mail.** Mail represents a special category of distribution requirements because of its immediate impact on the morale and welfare of deployed US forces. **Postal support is an essential consideration in any military operation.** The Secretary of the Army is the executive agent for the MPSA, through which mail support is coordinated. The Executive Director of MPSA exercises C2 of the joint military postal activity (JMPA) and is the single point of contact with the USPS. **Geographic combatant commanders are responsible for development of postal plans to support theater operations.** Combatant commanders must specify the level of mail support authorized for the theater during operations, the mail restrictions imposed in theater, other inbound restrictions, and theater POEs and PODs supporting operations. Service component postal assets are utilized to distribute mail after arrival at theater PODs. Combatant commanders may impose mail embargoes or restrictions based on shortages in physical distribution and transportation capability, the operational and tactical situation, or HN restrictions. Free mail may be authorized for US and multinational operations at the request of the supported combatant commander. (However, free mail is not approved automatically, because it requires interagency coordination.) Any Service member mail may also be authorized at the request of the supported combatant commander. This decision must be weighed against available airlift, ground transportation, manning, and postal system throughput. Any Service member mail can have a positive impact on morale, especially for those Service members who infrequently receive mail; however, it competes with other movement requirements for limited transportation assets. HN authorities will not be authorized permission to inspect individual items of mail. The JMPA coordinates air and surface movement of military mail with the USPS from the CONUS gateway to theater PODs. This movement is executed using the transportation assets of the DTS. Forward movement of mail from the theater PODs is accomplished by the Service component appointed as the Service manager (SM) using pooled Service component postal assets. The SM will coordinate mail distribution operations at all military post offices, mail control activities, aerial mail terminals, fleet mail centers, and surface mail terminals supporting the operation. The SM may

establish mail embargoes or restrictions at any time based on shortages in mail distribution infrastructure or if mail distribution is impacting distribution of mission essential materiel. (Appendix 5, "Military Postal Services," to Annex E, "Personnel," to OPLANs covers theater-wide mail support operations and distribution.)

CHAPTER V
ENABLERS

"It is very necessary to attend to all this detail and to trace a biscuit from Lisbon into a man's mouth on the frontier and to provide for its removal from place to place by land or by water, or no military operations can be carried out."

The Duke of Wellington, 1811

1. General

Distribution support to joint force operations requires the assurance of robust enablers and continuous improvement and innovation. **Enablers can be both physical, such as technology and equipment, and procedural, with streamlined, efficient policies, processes, and business practices.** Defense reform initiatives have emphasized the integration of modern technology and business practices into DOD operations, reducing policy and procedural barriers to change. The immediate and tangible impact of these distribution enablers is to provide combatant command and Service distribution planners and operators with a toolbox of solutions for global distribution operations. Distribution enablers for joint force operations are categorized as distribution facilities and infrastructure, distribution-related joint C4I and information (including TAV) systems, DOD and commercial transportation programs, modern procurement methods, and military standard logistic systems and procedures.

2. Facilities and Infrastructure

Global distribution operations rely on modern and efficient military and civilian facilities and supporting infrastructure. Facilities include the real estate and physical plant, such as buildings, equipment, and information management systems to support operations. Supporting infrastructure, including ports, roads, airfields, railroads and railheads, and staging areas, is also vital to global distribution operations. **The quantity and quality of these facilities and infrastructure, particularly OCONUS, may not always be adequate.** Regardless of existing facilities, the net capabilities of US forces must be sufficient to provide force projection and forward presence worldwide. Global distribution operations leverage existing facilities and infrastructure at the commencement of operations. Initially, distribution operations may require the use of labor- and/or equipment-intensive methods to overcome facility and infrastructure inadequacies. Over the course of an operation the condition of distribution facilities and infrastructure, including essential ports, airfields, and roads, may be upgraded by US military engineer forces through use of rapid construction methods and techniques such as runway repair, temporary bridging and bypasses, construction of pre-fabricated shelters, and beddown construction. The use of theater support and contingency construction contracts via the civil augmentation programs and the potential use of a PV for bridging provide additional options and flexibility in upgrading facilities in a timely manner. Use of specially designed facility systems, such as airfield matting, K-spans, and pre-packaged beddown sets provide additional alternatives to rapidly improve and expand key infrastructure. Major facility improvements are contracted commercial projects that require significant investment in both time and money and may not be feasible for short-term accomplishment

when measured against the expected duration of campaigns or operations and distribution requirements.

a. **Communications Infrastructure.** The Defense Information Systems Network (DISN), a communications component of the Global Information Grid, is the DOD consolidated worldwide communications infrastructure that provides end-to-end information transport for supporting military operations and national defense C4I requirements. DISN provides the transmission and switching of voice, data, video, and point-to-point bandwidth services for wide area, local area, metropolitan area, and long-haul networks. DISN uses available commercial products and services, while providing the Department of Defense with the degree of network control necessary to ensure rapid response to the warfighters. **Sufficient telecommunications capacity and priority to support logistic bandwidth requirements are essential for successful global distribution operations.**

The Services have inherent capabilities to temporarily improve or upgrade infrastructure and facilities in support of global distribution operations.

b. **Transportation Infrastructure.** CONUS forces and military installations require the facilities and infrastructure to execute distribution operations for joint operations. Organic transportation infrastructure in CONUS consists of ammunition ports, aerial ports, and limited surface transportation capability. **Commercial transportation infrastructure is heavily leveraged to support global distribution operations.** Planners must identify commercial transportation infrastructure support required and work closely with the commercial industry to ensure support.

c. **Depots, Arsenals, and Maintenance Facilities.** In addition to transportation infrastructure, the network of Defense and Service depots, arsenals, and maintenance facilities provide the strategic distribution functions of supply and maintenance. The Military Departments operate arsenals, maintenance depots, and naval shipyards as well as ammunition plants and storage areas. The defense distribution center (DDC), a primary field-level activity of DLA, operates a physical network of defense distribution depots, which is a major element of the DOD distribution system. These depots are located throughout the world as depicted in Figure V-1.

- The depots are responsible for providing DOD-owned commodities to all branches of the Armed Forces and other agencies of the federal government throughout the world. The depots accomplish this mission by conducting physical distribution functions of receipt, storage, issue, packing, preservation, freight consolidation and shipping, TAV,

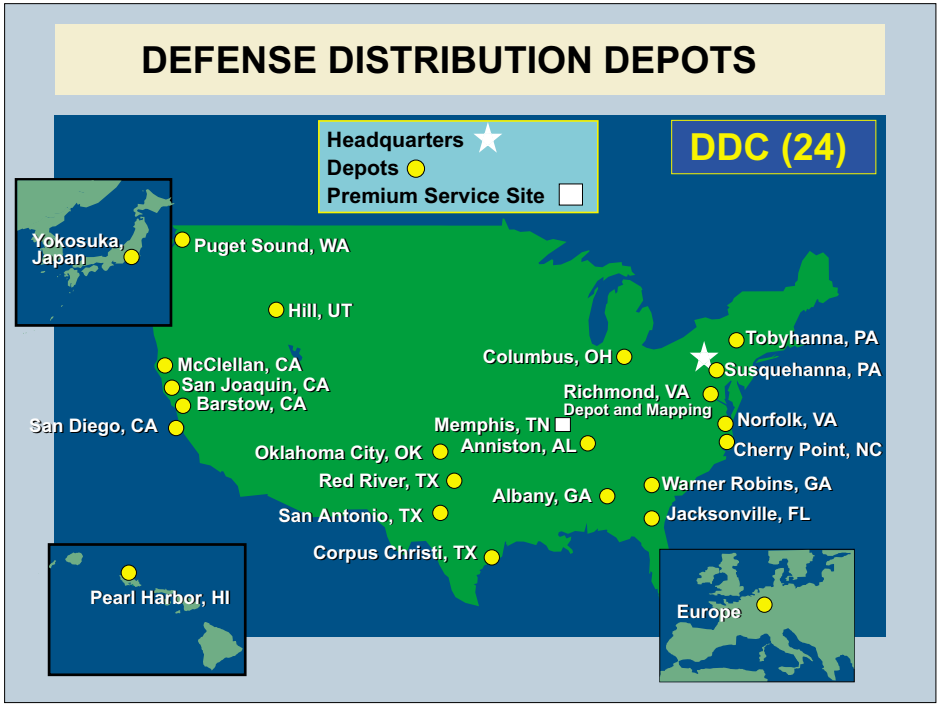


Figure V-1. Defense Distribution Depots

ITV, and redirecting en route shipments when required.

- Within this network of depots there are two primary distribution sites (PDSs): Defense Depots San Joaquin, California, and Susquehanna, Pennsylvania. These sites provide strategic support to CONUS and OCONUS customers throughout the world. San Joaquin focuses on Pacific customers and Susquehanna's focus is on customers located in Europe, North Africa, Southwest Asia, and Central and South America. The PDSs operate CCPs, as illustrated in Figures V-2 and V-3, to consolidate materiel from other DDC depots, prime vendors, GSA, and other government supply sources for OCONUS shipment. The CCPs build pallets for air shipment via military air lines of communications (MILALOCs) and commercial air lines of communications (COMALOCs) and containers for surface intermodal movement.

d. **OCONUS Facilities and Infrastructure. Forward presence forces benefit from access to distribution facilities and infrastructure comparable to that available to CONUS-based forces.**

- **OCONUS Distribution Depots.** There are three forward DDC depots located in Hawaii, Japan, and Germany, as depicted in Figure V-1. These depots offer opportunities to forward-position stock for OCONUS customers. Replenishment materiel originates at or is forwarded to the CONUS SDPs for consolidation and transportation to OCONUS depots. These depots enhance the in-theater distribution system by forward stocking high usage items closer to the operational area enabling parts and supplies to be distributed in a more timely manner.

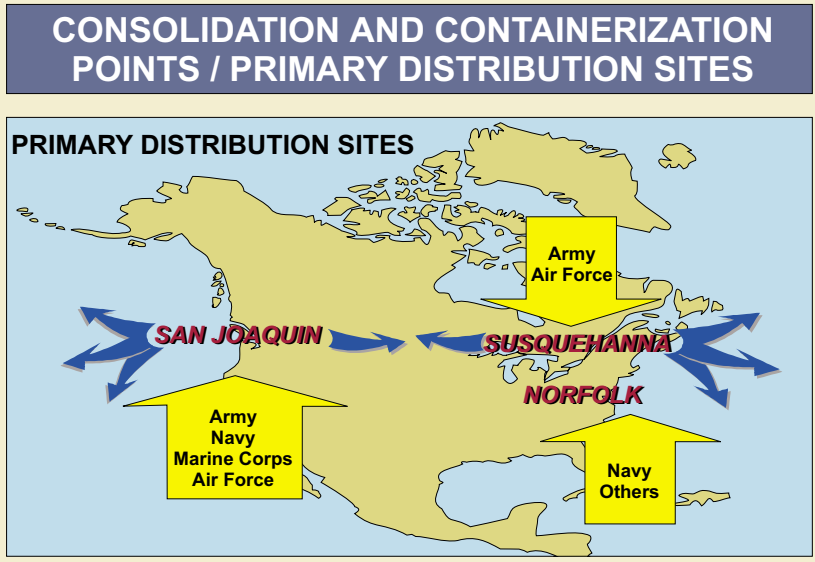


Figure V-2. Consolidation and Containerization Points/Primary Distribution Sites

- **OCONUS Seaports and Airports.** PODs in the supported theater are the points from which materiel exits the strategic lift phase of global distribution and enters the theater distribution system. **OCONUS ports can be the most constraining segment of all facilities affecting global physical distribution channels.** Selection and operation of port facilities is critical to distribution support of joint forces. Port capabilities, facilities, physical security, and proximity to adequate road, rail, inland waterways, and pipelines are important factors in port selection. **The true measure of port effectiveness is throughput.** Some factors include facilities, labor, materials handling equipment, port capacity, and connectivity to other transportation infrastructure and information systems. MTMC Traffic Engineering Agency, USTRANSCOM's Joint Intelligence Center for Transportation, MSC, and AMC are the primary DOD agencies that determine and assess port throughput and capabilities.

•• **SPODs.** The shift from strategic sealift to theater distribution capabilities using intratheater air, highway, rail, barge, and pipeline occurs at SPODs. **Seaport adequacy is based on physical considerations that are often difficult to improve in the short term.** Navigability, channel depths, numbers and sizes of ship berths, intermodal cargo handling equipment, and explosive handling limitations are significant factors that will affect materiel throughput. Another significant consideration is the impact of simultaneous commercial transportation, industrial operations, and other activities in the port area. Expansion of fixed-port facilities by US forces requires a long lead-time and significant resources. Another alternative, much faster to implement, is to **augment inadequate**

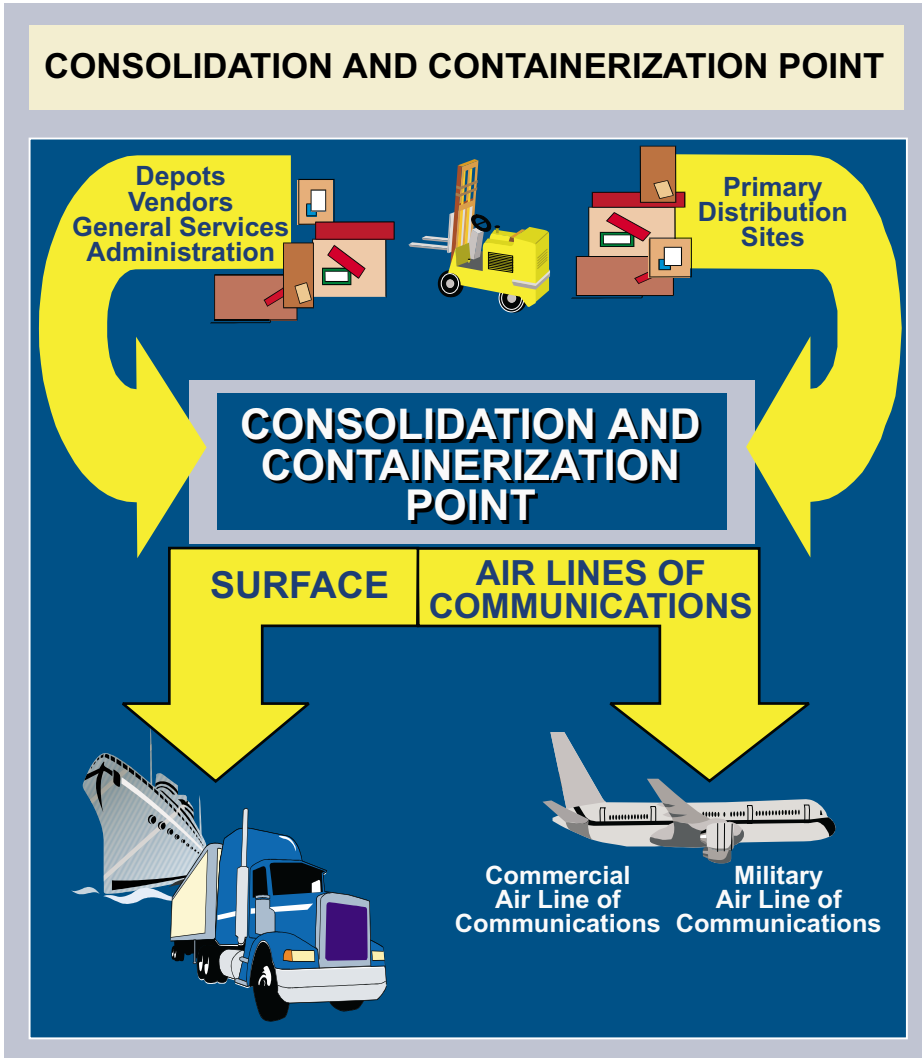


Figure V-3. Consolidation and Containerization Point

SPODs through the employment of JLOTS capabilities until other infrastructure enhancements can be realized.

•• **APODs.** Strategic airlift interfaces with the theater distribution system, either intratheater airlift or surface transportation, at APODs. Factors such as runway length and weight bearing capability, taxiway systems, ramp space, materials handling equipment and personnel, aircraft servicing and maintenance, navigation aids, and communications systems affect maximum aircraft on the ground and throughput capacity of aerial ports. Again, a significant consideration in determining capabilities of an APOD to support global distribution operations is the effect of commercial transportation, industrial operations, and other activities in the port area. **Construction or rehabilitation efforts can overcome some APOD shortcomings.**

- **HN Distribution Infrastructure Support.** US forces frequently operate in areas, or require en route support, necessitating reliance on HN resources to successfully execute global distribution operations. Preexisting multilateral joint logistic support plans and other similar joint support plans can serve as useful tools in identifying committed infrastructure support capabilities of the HN. HN agreements, such as SOFAs and multinational and/or bilateral agreements negotiated before crises arise, facilitate needed access to HN resources. Where these agreements do not exist they must be created. **HN coordination should be centralized as much as possible to effectively use the assistance provided by the HN and other nations in the region.** The combatant commander should address all HN sensitivity issues as early as practicable to ensure that theater distribution operations are not adversely affected or create obstacles that affect strategic distribution operations. Planners must be aware of creating competition with the local population or government for scarce distribution-related facilities. Clearance for convoys, air and rail movement, and hazardous material may be required and are examples of items that should be coordinated in advance of anticipated operations.

3. C4I Components of the Global Information Grid

The Global Information Grid (GIG) provides the globally interconnected capabilities, processes, and personnel for providing information on demand to warfighters, policy makers, and supporting organizations. C4I support to the global distribution system is vital to planning, initiating, conducting, sustaining, and protecting a successful joint operation. These capabilities support the communications and information networks of global distribution. **Responsive C4I allows combatant commanders and their staffs to initiate, direct, monitor, query, and manage global distribution information relative to their operations.** Without on-demand communications, this doctrine cannot be executed. As components of the GIG, the DISN and the following major C4I systems are essential enablers for global distribution operations.

a. **Defense Message System (DMS).** DMS is an integrated common-user, writer-to-reader organizational and individual messaging service accessible from DOD locations worldwide, tactically deployed users, and other designated government users, with interfaces to multinational users and defense contractors. DMS is a military communications platform to enable distribution information to flow between customers and providers.

b. **Global Command and Control System.** GCCS is a comprehensive automated C4I system designed to improve the JFC's ability to manage and execute joint operations. GCCS is the primary means of C2 for joint operations that is based upon the ability to provide situational awareness, force projection, and office automation and message processing to the JFC. GCCS forms an information grid that incorporates procedures, reporting structures, automated information processing systems, and communications connectivity to provide the information necessary to effectively plan and execute global distribution operations.

c. **Global Combat Support System.** GCSS is a family-of-systems approach to information interoperability and establishes information and data interoperability across combat support information systems and between combat support and C2 functions in support of the joint warfighter. GCSS

provides a fused, integrated, real time multidimensional view of combat support and combat service support within the battlespace through system interoperability and connectivity of information systems, making all data accessible and fused through a web-based environment.

4. Information Systems

The information network of the global distribution system has numerous information systems to enable planning distribution functions, execution of distribution operations, and provision of visibility over the distribution process. **Distribution planning systems enable balance and agility in distribution operations and promote warfighter confidence in distribution support plans. Distribution execution systems enable velocity, integration, and efficiency. Visibility systems support control, security, and precision and further enhance confidence in distribution operations.**

a. **Planning Systems.** Major distribution planning systems include the following:

- **Integrated Consumable Item Support (ICIS).** The ICIS system identifies specific critical items and their affected weapons systems, calculates when stock will be exhausted, and guides inventory investment decisions to support contingencies. The model provides sourcing information for DLA-managed items to DLA management, the Services, and the combatant commands to be used as a piece of the larger wartime sustainability picture. ICIS identifies inventory sources for Class I, II, III, IV, VIII, and IX items. The ICIS sustainment metrics and factors are linked to the Services' readiness based models. These links allow the Services to consider DLA-managed items in determining operational availability of critical weapon systems. ICIS also identifies critical items with the greatest potential to adversely affect joint operations.

- **Joint Force Requirements Generator II (JFRG II).** JFRG II is a GCCS application. It is an automated, computer-based planning tool designed to support the Services in the development of both

Information systems provide the key enabler for managing global distribution velocity and precision.

deliberate and crisis action plans. It supports tactical and administrative planning by providing the following capabilities: import of Service type unit characteristics file data, rapid force list creation, lift analysis, TPFDD development and manipulation, and import and export to JOPES.

- **Joint Flow and Analysis System for Transportation.** JFAST is an analytical tool for making detailed estimates of resources required to transport military forces (including cargo, personnel, and sustainment) and materiel during joint operations. JFAST is used as a planning and forecasting tool for deliberate planning and CAP. The system determines the transportation feasibility of the TPFDD (from origin through arrival at the POD) and generates summary data via charts, tables, maps, and other visual aids for use by senior leaders. JFAST determines closure dates, congestion points, lift utilization, and shortfalls. JFAST products include delivery profiles and lateness analysis, required lift by day versus lift available, and port workload by level of activity based on capacity.

- **Enhanced Logistics Intratheater Support Tool (ELIST).** ELIST is an analytical tool that simulates, from a transportation perspective, the deployment of forces within CONUS (port-to-port) or theater (POD-to-destination). It helps planners analyze and develop COAs that ensure that forces arrive at particular in-theater destinations on specific dates. ELIST models organic and HN transportation assets and transportation infrastructure. ELIST performs detailed intratheater deployment studies to analyze effects of force modernization and new force structures and changes to the DTS and to check transportation feasibility of contingency operations. ELIST enables planners to model the impact of theater transportation infrastructure limitations (through combat loss, weather, or limited HN access).

- **Consolidated Air Mobility Planning System (CAMPS).** CAMPS supports mobility planners by providing a single integrated planning, scheduling, and analysis system for airlift and refueling assets in support of peacetime, MOOTW, and wartime operations. CAMPS determines time-phased air refueling and airlift closure requirements by major command organization based on movement priorities. Used daily, it provides flight plans, compensates for wind, and includes air refueling determinations for all DOD large-scale and tactical deployments. CAMPS' diverse interfaces access a host of C2 applications. They allow realistic development of total mission support for deliberate and crisis action planning allocation management and for the requirements closure process. This includes large-scale mobility operations and tactical mobility operations from forward locations.

- **Command and Control Information Processing System (C2IPS).** C2IPS is used by AMC to plan, schedule, execute, and monitor airlift and air refueling missions at the unit level. It reports status, capability, and limitations of aircraft, aircrew, and resources.

b. **Execution Systems.** Major distribution execution systems include the following:

- **Inventory Control Point AIS.** ICP AIS are business systems used by materiel and item managers to control on-hand wholesale and retail assets by location and condition code; manage wholesale assets due in from procurement and

depot-level repair; and calculate stocking levels and positioning.

- **Distribution Standard System (DSS).** DSS is the DOD standard AIS that manages the flow and storage of stock at DLA distribution depots. DSS provides enhanced tools for improving inventory accuracy and control, improves the operating efficiency of depots, and supports TAV by enabling the use of AIT devices to continuously update the DAAS Center feeds to GTN for ITV and the TAV database.

- **Hazardous Material Information System (HMIS).** HMIS is the centralized repository for Material Safety Data Sheets and associated logistics information for the Department of Defense. It interfaces with the DSS and provides the Hazardous Characteristics Codes to DSS, which DSS uses to determine the location and methods of storage. Transportation data in HMIS is used to ensure proper packaging and transportation methodology.

- **Transportation Coordinator's Automated Information for Movement System II (TC-AIMS II).** TC-AIMS II is DOD AIS that integrates fielded Service-unique transportation systems into a single AIS to provide timely and accurate passenger and cargo movement information and control during force deployments. TC-AIMS II provides day-to-day traffic management capabilities to support deployment, redeployment, and sustainment of US forces worldwide.

- **Global Decision Support System (GDSS).** GDSS is the worldwide C2 system for execution of intertheater airlift and air refueling during peacetime, contingencies, and war. GDSS is used to monitor and manage all operational DOD intertheater air mobility missions throughout the world, including all organic, commercial, and air refueling missions. Most intratheater airlift and air refueling missions flown within a JOA are not included in GDSS. GDSS also feeds movement information to GTN to provide ITV of mobility airlift assets.

- **Global Air Transportation Execution System (GATES).** GATES is the fully integrated air transportation system used to document cargo and passenger movement.

- **Integrated Command, Control, and Communications (IC3) System.** IC3 is the MSC C2 system used to manage sealift transportation. IC3 provides C2 and visibility of sealift assets and POL, and interfaces with other essential information systems such as GTN and GCCS.

- **Worldwide Port System (WPS).** WPS is the common-user port documentation and cargo accountability system used to support DOD worldwide sealift requirements. WPS provides visibility data to the GTN and transmits necessary advance cargo-related information directly to the theater for planning purposes. Theater port personnel and movement control organizations utilize the advance information to plan and manage reception, staging, and onward movement of unit equipment and sustainment materiel.

- **Integrated Booking System (IBS).** IBS is the business system supporting the movement of unit and sustainment cargo by surface. The system offers continuous access to ocean shipping capabilities. It provides booking data and ship schedule information for both unit and sustainment cargo to the GTN and WPS. Through interfacing with these systems, critically

needed transportation data is available to outside agencies responsible for C2.

- **Global Freight Management (GFM) System.** GFM is the business system that connects military shippers to CONUS land transportation capabilities. It does so by automating the booking, rating, and routing process.

- **Asset Management System (AMS).** AMS is used to manage DOD freight cars, Army-owned International Organization for Standardization (ISO) containers, and leased ISO containers for all Services. It provides MTMC with the AIS capability to manage all aspects of the DOD interchange freight car fleet and the Army common-user container fleets.

c. **Visibility Systems.** Asset visibility systems enable the capability to collect and maintain information on the location, status, and movement of materiel in the global distribution system. ITV is the ability to track the identity, status, and location of DOD unit and non-unit cargo, passengers, patients, forces, and military and commercial airlift, sealift, and surface assets from origin to the destination during peace, contingencies, and war. Process visibility systems enable the monitoring and measurement of the elements of the distribution process. The programs and systems described below facilitate visibility and enable the supported commander to maintain effective control.

- **Joint Total Asset Visibility (JTAV).** JTAV is the primary AIS for DOD's visibility concept. It is the joint logistic system that provides users with timely and accurate information on the location, movement, status, and identity of units, personnel, equipment, and supplies. It provides commanders and logisticians with the information necessary to improve overall performance of the global distribution system. JTAV includes in-process, in-storage, and in-transit business processes.

- **Global Transportation Network.** GTN is a single system that integrates information from a variety of DTS automated information systems to provide ITV and C2 data support. GTN supports the NCA, the combatant commands, the Military Services, and other DOD customers with information to better manage their warfighting and logistic capabilities. GTN integrates automated data processing and information systems, and electronic commerce and electronic data interchange to track ITV.

- **Logistics Information Processing System (LIPS).** LIPS is the DOD central repository for information on the status of requisitions maintained by the DAAS Center. The data in LIPS originates with requisitions and other supply-related transactions that flow among DOD units, ICPs, and sources of supply through DAAS. LIPS supports visibility processes through its capability to capture requisition and requisition-related data. This includes traditional military distribution transactions and new business practices such as inter-Service lateral distribution, intra-Service retail-to-retail orders, and retail-to-PV orders. LIPS supports TAV by providing requisition and shipment data.

- **Logistics Metrics Analysis Reporting System (LMARS).** LMARS is a DOD system that captures and measures the performance of the distribution elements as material flows through the commodity supply chains. LMARS is populated with information from the MILSTRIP and military standard transaction reporting and accounting procedure (MILSTRAP) transactions that flow through DAAS. LMARS reports

response time at specific points in the distribution process. It is used as an assessment tool by DOD agencies and the Services to measure logistic response time and assess distribution system performance.

- **Automated Identification Technology.** AIT captures identification information for individual items of materiel and materiel that has been consolidated for shipment to enable visibility and distribution execution. Information is captured electronically and passed to distribution-related AIS, where it is incorporated with other information relevant to that item or shipment. This process reduces the laborious and error-prone manual component of traditional data entry, improves accuracy, reduces physical processing time, and achieves precise asset visibility at all stages of the global distribution system. A goal of logistics transformation is for nodes of the DOD global distribution system to read and write AIT devices. Major AIT media types and their typical DOD applications are as follows:

  •• **Bar Codes.** A bar code is an array of parallel, narrow, rectangular bars and spaces that represent a group of characters in a particular symbology. The bars and spaces are arranged in an order defined by the symbology. Bar codes are applied on labels, paper, plastic, ceramic, and metal by a variety of marking techniques.

  •• **Two-dimensional Bar Code.** "Two-dimensional bar code" is a generic term usually used to refer to larger capacity bar codes that can store as many as 1850 characters and are able to sustain considerable damage and still be read. Their durability, as well as additional data capacity, can provide options for increased efficiency and effectiveness of many DOD operations.

  •• **Optical Memory Cards (OMCs).** OMCs are credit card-sized data storage devices that can store large volumes of information using a laser beam. OMCs are routinely used by the Army, Marine Corps, and DLA as part of the Automated Manifest System to transfer depot supply and transportation data to supply support activities for receipt processing, discrepancy reporting, and reconstituting shipment data and documentation. The cards accompany air pallets and seavan containers between selected depots and supply support activities.

  •• **Radio Frequency Identification (RFID).** RFID uses small electronic devices known as tags or transponders that can read information from or write information to the tags using radio frequency energy. They range from permanent identification information tags to reuseable memory tags. RFID devices provide operators with a means to remotely identify, categorize, and locate people and materiel automatically and send data to AIS. RFID is used to capture individual as well as consolidated shipment information. The Department of Defense maintains an RFID capability at selected nodes to support peacetime requirements and provide a base for expanding support during contingency operations and exercises. A deployable capability is available to support theater contingencies.

  •• **Satellite-Tracking Systems.** Satellite-tracking systems provide a capability to track near-real-time location of vehicles, materiel, and convoys and offer a digital communication capability to drivers. The Defense Transportation Tracking System (DTTS) currently uses

commercial satellite-tracking technology to monitor shipments of arms, ammunition, and explosives by commercial motor carriers in CONUS. The Defense Transportation Reporting and Control System (DTRACS) was derived from DTTS and is used to monitor military truck movements, convoy operations, and rail movements in US Army Forces, US European Command. DTRACS feeds tracking information to TAV.

•• **Common Access Card (CAC).** The CAC is currently being fielded. The CAC will be the standard identification card for active duty military personnel, Selected Reserve, National Guard, DOD civilian employees, and eligible contractor personnel. Initially it will be the authentication token carrier for the Department of Defense, and the principal card used to enable physical access to buildings and controlled spaces as well as a means to gain access to DOD computer networks and systems. In the future the CAC is envisioned as a key enabler for personnel asset tracking during mobilization and deployment of forces.

5. Department of Defense and Commercial Transportation Programs

Transportation programs encompass all three elements of the DTS: air, land, and sea. Airlift is generally the fastest but most costly means for distribution of materiel from strategic sources to the operational level. The Department of Defense relies on government and commercial sealift to move cargo to support contingency operations. Land transportation is the link between sources and/or storage points and strategic lift and is typically the final transportation stage for delivery to the joint force customer. Through partnering with customers and industry carriers, USTRANSCOM has developed transportation enablers that facilitate global distribution. These enablers are as follows.

For more information on the Defense Transportation System, see JP 4-01, Joint Doctrine for the Defense Transportation System.

a. **Airlift Programs.** Airlift programs include the following:

- **Airlift Channels.** Channel airlift missions support global distribution operations over established worldwide routes (combatant command or Service-validated) that are served by scheduled DOD aircraft under AMC control or commercial aircraft contracted and scheduled by AMC. **These missions provide requirements and frequency airlift services to meet customer needs.** AMC provides channel service from APOEs to APODs. AMC establishes requirements channel airlift missions to support service between two or more points on a recurring basis, with actual movements dependent upon the volume of traffic. Frequency channel airlift missions are established when traffic volume does not support the desired frequency of service. These channels support operational necessity and quality of life requirements in remote areas. Airlift missions operate daily from CONUS APOEs to OCONUS APODs. Additional channels are established to move materiel within theater.

- **Special Assignment Airlift Missions.** Special assignment airlift performs **special pickup or delivery at points other than established AMC routes or channels**. Service is from origin to destination and the customer is billed for aircraft positioning costs.

- **Theater Airlift Augmentation.** Under certain conditions, AMC aircraft may be temporarily attached to a geographic combatant commander to provide additional theater airlift capability.

- **Operational Support Airlift (OSA).** OSAs are organic airlift assets that are an integral part of a specific Service, component, or major command and primarily support the priority movement of personnel and cargo with time, place, or mission-sensitive requirements. The Services train, equip, and operate OSA air mobility assets. CONUS-based OSA assets are scheduled by the Joint Operational Support Airlift Center. During contingency or war a number of these airframes would normally be provided to a JFC to create or supplement the theater's air mobility capability.

- **Navy Unique Fleet Essential Airlift/ Aircraft.** NUFEA is a Service-unique distribution asset that accomplishes the final link in the delivery chain from AMC channel distribution hubs to the mobile and/or afloat customer unit. It performs the critical fleet support role of destination flexible replenishment of high priority, air worthy items and/or passengers.

- **Commercial Airlift Augmentation.** Commercial airlift augmentation capabilities include both AMC-controlled and contracted airlift to increase the agility and flexibility that airlift provides to global distribution.

  •• **Charter.** Category A is a contract with the commercial air carrier industry allowing cargo to be individually waybilled between CONUS and overseas stations or between overseas stations. Category B is an AMC-procured planeload charter on commercial aircraft. Cargo moves in full planeload lots on other than a carrier's regularly scheduled commercial flights.

  •• **Civil Reserve Air Fleet.** The Department of Defense uses the contractually committed capability of commercial air carriers to augment the military airlift capability of AMC to satisfy DOD airlift requirements. CRAF can be incrementally activated by USCINCTRANS with approval of the Secretary of Defense in three stages in response to defense-oriented situations, up to and including a declared national emergency or war, to satisfy DOD airlift requirements. When activated, CRAF aircraft are under the tactical control of USCINCTRANS while remaining a civil resource under the operational control (OPCON) of the responsible US entity or citizen.

  For more information on CRAF and its activation stages, refer to JP 3-17, Joint Doctrine and Joint Tactics, Techniques, and Procedures for Air Mobility Operations.

  •• **Express Service.** During a contingency, the vast majority of airlift sustainment will move on channel missions. However, USTRANSCOM can establish, upon request of the supported combatant commander, an express service to move combatant commander-designated high priority items into the AOR. **The supported combatant commander will direct what portion of CJCS-allocated strategic lift will be used for express service.** Depending on the speed and volume of cargo, space will be allocated to each joint force component by one of two processes: (1) dedicated pallet positions on designated channel missions; or (2) on dedicated express aircraft. For express service to be effective, the supported combatant

commander must dedicate theater distribution capabilities to deliver express service cargo from the APOD to final destination at an "express" level of service.

•• **Worldwide Express (WWX).** WWX is the federal government's time-definite, door-to-door commercial express package service for high priority packages in limited weight categories (see website for current restrictions). The Department of Defense is partnered with GSA to leverage industry for this international express delivery service. Features of the service include: door-to-door pick up and delivery; time-definite delivery; customs clearance; and ITV through the GTN. The WWX website is http://public.scott.af.mil/hqamc/wwx/wwx.htm/.

•• **Air Tenders.** Air tenders are voluntary or negotiated offers by qualified CRAF carriers to provide transportation services at specific rates that are negotiated for each traffic lane (established air route). **Customers negotiate directly with carriers to establish or modify rates, charges, rules, and accessory services.** Tenders must be approved by AMC prior to use. Service under tenders is based on commercial carrier capabilities into geographic areas or lanes. A wide variety of service options exist and the shipper has maximum flexibility to choose a carrier based on cost and performance. Service includes door-to-door, counter-to-counter, door-to-counter, and customer drop off and pickup.

•• **GSA Domestic Express Small Package Program** is air and/or surface service for domestic overnight or second day delivery for packages up to 150 pounds shipped to destinations more than 500 miles from origin. MTMC is the DOD point of contact for this GSA service contract.

•• **Military Air Line of Communications and Commercial Air Line of Communications.** MILALOC shipments are single consignee, full air pallet shipments consolidated at DLA CCPs and trucked to AMC APOEs for air shipment to designed OCONUS military activities. The COMALOC program moves consolidated air pallets under Category A contracts with commercial air carriers from the CCPs directly to the recipient, bypassing AMC aerial ports.

•• **Premium Service Program.** Premium service is a DLA storage and transportation arrangement that provides materiel managers time-definite delivery and high-speed distribution by placing high-value or critical materiel in a commercial storage depot collocated with a worldwide air parcel carrier hub. Premium service offers door-to-door delivery in CONUS within 24 hours of order receipt and 48 hours in-country delivery OCONUS.

b. **Sealift Programs.** Sealift is the least expensive method of transporting materiel to OCONUS locations. Historically, 90% of joint force materiel is transported by sealift. **Sealift is the fastest and most cost-effective method of transporting large quantities of material.** There are a variety of capabilities that enhance sealift support to global distribution operations. These programs are as follows:

- **Dry Cargo Operations**

•• **Controlled Fleet.** MSC has a fleet of dry cargo ships to satisfy roll on/roll off (RO/RO) and long-term cargo lift requirements that cannot be filled by US flag commercial liner operators. The fleet

is sized based on the forecast of special category and exercise cargo (by type and route) that cannot be carried by regular commercial services.

•• **Commercial Maritime Industry.** MTMC universal service contracts (USCs) are established with the ocean carrier industry for ocean and intermodal transportation services for the movement of cargo in the DTS worldwide at reduced rates. Where USC services are not available, or do not meet the particular customer's service requirements, Special or Dedicated Service contracts are established by MTMC. All agreements and long-term contracts are with US flagged carriers, preferably those participating in the VISA program, unless such service is not available. Use of foreign flagged vessels is permitted if US flagged service is not available to meet sealift requirements. **USC service is from SPOE to SPOD for breakbulk and from origin to destination for container cargo.** Delivery points for special and dedicated service are based on the terms of the individual contract.

•• **Voluntary Intermodal Sealift Agreement.** VISA is the primary sealift mobilization program that was developed through a unique partnership between the Department of Defense, the DOT, and the commercial sealift industry. **VISA is an intermodal, capacity-oriented program vice a ship-by-ship oriented program.** It provides contractually committed, time-phased, sealift capability to meet DOD contingencies when commercial service is not adequate to meet OPLAN requirements for joint operations. The worldwide shipping services provided by these commercial carriers provides extensive and flexible capabilities to the Department of Defense. VISA provides the process for the Department of Defense and industry to develop flexible concepts of operations for contingency sealift in support of combatant commander OPLANs. The majority of the dry cargo fleet is enrolled in VISA. The types of ships enrolled include container ships, RO/RO ships, lighter aboard ship vessels, combination RO/RO and container ships, heavy lift ships, breakbulk ships, tugs, and barges.

- **Combat Logistics Force.** The CLF consists of active fleet and MSC-controlled ships that are tasked with providing underway replenishment to deployed fleet units.

- **MSC Petroleum Tanker Fleet.** The MSC petroleum tanker fleet is a fleet of chartered or contractually operated ships providing worldwide point-to-point movement of DOD bulk petroleum products. Primary customers are the DLA DESC and the Navy. Service can be from, to, and between commercial sources or storage locations, military base storage sites, and for special delivery to Navy ships at sea.

- **Contingency Support Fleet.** The contingency support fleet is composed of four categories of vessels: fast sealift ships (FSSs), large, medium speed RO/RO ships, afloat pre-positioning force (APF), and the RRF. All are strategic sealift resources that provide rapid response and worldwide strategic pre-positioning. **These assets and capabilities are used to satisfy exercise, surge, and contingency requirements only and cannot be used for routine movement of peacetime cargo.**

  •• **Fast Sealift Ships.** Eight FSSs, with more than 27 knot capability, together can transport the equipment for one Army mechanized or armored division.

•• **Large Medium Speed RO/ROs.** These ships each carry approximately twice the amount of cargo of an FSS but are slower at 24 knots. They are also civilian contract operated and layberthed on the US East and Gulf coasts to be within a few days transit of their loading ports.

•• **Afloat Pre-positioning Force.** APF ships provide mobile materiel storage and delivery capabilities that defer the need for strategic lift (both air and sea) and serve as a vital major source of inventory during the critical early stages of joint force operations. The APF includes: maritime pre-positioning force, Army pre-positioned stocks, and Navy, DLA, and Air Force pre-positioning ships.

•• **Ready Reserve Force.** The MARAD maintains a fleet of ships, the RRF, in a reduced operating status or a lay-up status for use by the Department of Defense when required. When activated, RRF ships will carry combat-surge and follow-on cargo and fall under the OPCON of USTRANSCOM (exercised through MSC). Some of these vessels have unique features to support logistics-over-the shore operations or JLOTS, where fixed-ports may be inadequate, damaged, or nonexistent. The RRF outporting program places some of the high readiness ships at commercial and government layberths near their activation yards and load ports to improve response time.

c. **Land Programs.** Virtually all movement of forces and materiel begins and ends with land transportation, regardless of the strategic lift method. MTMC provides CONUS traffic management support for freight and passenger movements on surface carriers, operates the Defense Freight Railway Interchange Fleet of more than 1000 special use railcars, and administers the DOD highways, railroads, ports, and intermodal programs for national defense. MTMC also monitors the status of worldwide infrastructure, including ports, inland waterways, and pipelines. MTMC coordinates force movement to seaports both in the United States and overseas, prepares the ports for ships and cargo, and supervises loading operations. MTMC administers the contingency response program (CORE), serves as SPM to combatant commanders, and develops integrated traffic management systems.

- **CONUS Commercial Resources.** The commercial transportation industry has substantial capability available to meet the CONUS transportation needs of the Department of Defense across the range of military operations. CORE supports the acquisition of domestic civil transportation resources during military deployments. This voluntary program provides DOD commercial transportation service support and priority for commercial transportation prior to and during contingency and mobilization. CORE supports resource acquisition for commercial transportation, coordinates hazardous materials movement, provides liaison to the USCG for port security support, and performs source identification for emergency lease and/or purchase of commercial heavy equipment transporters.

•• **Guaranteed Traffic.** Guaranteed traffic programs consolidate freight requirements for a geographic area into a single contract, lowering transportation costs by awarding what had previously been numerous individual freight contracts to the lowest cost carriers. Under the guaranteed traffic program, carriers submit bids — called solicited tenders — on traffic lanes. The successful bidder, based on an evaluation of service, timeliness, and experience,

becomes the primary carrier for the lane and gets the first opportunity at all traffic.

•• **Dedicated Truck Delivery.** Dedicated truck delivery programs enable time definite service supporting customers receiving numerous shipments on a regular basis from DDC depots. Agreements are made to deliver all cargo, regardless of priority or size, via regular truck service. The delivery schedule is based on volume and can be every day or as little as once a week. The depot and the customer determine the "best" delivery schedule. Customers specify the receiving location and time of day for delivery. Regular deliveries on a set schedule save transportation costs and allow customers to schedule receiving workloads. Dedicated truck arrangements are best suited for customers with consistent volumes of cargo.

- **OCONUS CULT. The Department of Army is responsible for making CULT available for the other Military Services in several overseas areas.** Under CULT, land transportation assets are normally under the OPCON of the combatant commander's Army component commander, who coordinates all planning and requirements for the use of DOD-controlled land transportation equipment and facilities designated common-use in theater. Service component commanders, however, maintain control and authority over their Service-owned assets that are not designated as common-use to ensure accomplishment of their mission. The Navy and Air Force components provide organic land transportation support within their installations and activities and submit peacetime requirements for common-use theater or area transportation to the Army component for those theaters where the Army has been assigned CULT responsibility. Wartime CULT requirements are the combatant commander's responsibility and normally the Joint Movement Center (JMC) or a component assigned the CULT mission will consolidate planned wartime movement requirements for all component commands. Nonmilitary transportation resources can include HNS, multinational civil organizations, indigenous commercial transportation providers, and third party logistic organizations.

d. **Intermodalism and Containerization.** Global distribution efficiency is heavily dependent on reducing intermediate node handling of materiel moving through the distribution system. **Intermodalism is the transfer of passengers or transshipment of cargo among two or more modes of transportation.** Containerization facilitates and optimizes intermodal cargo movement by reducing handling, increasing throughput opportunities, speeding onward movement, increasing cargo security, and providing opportunities for improved ITV. Preplanned containerization programs, which integrate materiel management, storage, and transportation elements into tailored distribution solutions for joint force materiel, have significant potential to increase intermodal efficiencies within the theater. Increasing the Department of Defense's containerized cargo capability and use at all levels is essential for efficient distribution support of joint operations.

For more information on intermodal transportation, see JP 4-01.7, Joint Tactics, Techniques, and Procedures for Use of Intermodal Containers in Joint Operations.

6. Commercial Practices

The Department of Defense has increased reliance on the commercial sector to perform specific or multiple supply chain functions. These efforts bring the Department of Defense

more in line with the performance and standards of successful commercial companies. Global distribution operations have adapted a number of modern enablers to better leverage commercial sector capabilities.

a. **Vendor Support.** Increased use of vendor capabilities is a major method of increasing the value, velocity, and efficiency of distribution support to the warfighter while also affecting the "footprint" of logistic support. **The Department of Defense has instituted a series of initiatives to increase the use of commercial practices and distribution systems to satisfy materiel requirements.** A common thread throughout these initiatives is the increasing role of the commercial sector and the corresponding reduction in "hands-on" DOD actions while continuing to maintain or exceed logistic support standards. The transfer of government inventory and distribution capabilities to vendors decreases requirements on organic military assets. However, the potential exists for commercial distribution channels to become constrained or restricted under wartime conditions, resulting in an influx of commercial-origin materiel entering at a variety of points into the DOD distribution system.

- **Prime Vendor. PV is a vendor support process that provides commercial products to regionally grouped military activities and federal customers from commercial distributors using electronic commerce methods.** The process uses long-term contracts that set forth price, product, and delivery agreements for a variety of goods. Customers order directly from the vendor and receive materiel through the vendor's commercial distribution system. The subsistence and medical PV programs, for example, take advantage of the existing industry infrastructure and inventory to achieve rapid direct shipment from vendor to customer. Receiving fresher, brand name products faster increases customer satisfaction and significantly reduces DOD inventory holding and distribution costs. PV programs are widely used in CONUS and have been implemented OCONUS for selected commodities as described in Chapter IV, "Distribution Execution."

- **Virtual Prime Vendor.** VPV is a vendor support technique to provide a complete logistic solution covering numerous commodity and product lines to the customer. **VPV's are integrators who make use of commercial and government inventories, contracts, and other means to provide logistic support within DLA and the Services** for both maintenance and supply functions ranging from aircraft component repair to recruit training uniform issue. VPV functions include forecasting requirements, inventory control, engineering support, technical services, storage, distribution, and any other functions required to satisfy customer's needs. Like PV arrangements, VPV is also enabled by electronic commerce.

- **Direct Vendor Delivery. DVD is a streamlined distribution method that requires vendor delivery directly to a customer.** DVD may improve customer wait time and reduce the workload on the military distribution system. DVD complements some or all of the global distribution system. As an added benefit, DVD can eliminate DOD depot shelf-life and handling problems inherent in some commodities, such as light bulbs (fragile), camera and X-ray film (short shelf-life and special storage) and motor oil (hazardous material storage and handling). Many of these DVD efforts include a customer-transparent interface with MILSTRIP requisitioning procedures through paperless ordering

procedures. DVD may present the joint and Service logistic planners and operators with significant challenges in integrating DVD into theater-level distribution operations. These challenges can be greatly acerbated in austere operational environments where commercial delivery sources cannot, or will not, operate.

- **Civil Augmentation Programs.** Civil augmentation programs are enablers for peacetime planning for the use of civilian contractors in wartime and other contingencies. These contractors can perform selected distribution services to support US forces in support of DOD missions. **Civil augmentation programs are primarily designed for use in areas where no bilateral or multilateral agreements exist.** However, these programs may provide additional support in areas with formal HNS agreements, where other contractors are involved, or where peacetime support contracts exist. They are also available during CONUS mobilizations to assist the CONUS support base and help units get ready for deployment. The US Army's Logistics Civil Augmentation Program (LOGCAP) website is: http://www.amc.army.mil/dcs_logistics/lg-ol/Logcap.html. The Air Force Contract Augmentation Program (AFCAP), is administered by the Air Force Civil Engineer Support Agency (AFCESA). The AFCESA website is: http://www.afcesa.af.mil. The Navy's civil augmentation program, called the construction capabilities contract program (CONCAP), provides construction support during contingency operations and is operated by the Naval Facilities Engineering Command, http://www.navfac.navy.mil/. If use of a civil augmentation program is contemplated, planners must consider the effect of contractor logistic needs on limited transportation and infrastructure assets.

b. **Government Purchase Card. GPC is a commercial-style credit card issued to an authorized unit user by a GSA-contracted financial institution.** Using GPC, purchases are made from commercial or selected government sources by the cardholder up to the limit authorized for the user. The GPC reduces requisition processing time and facilitates de-centralized buying by non-procurement personnel. Caution should be

Civil augmentation programs free military manpower for other operational requirements.

exercised when using the GPC during contingency or war time due to lack of ITV and purchases moving outside of the approved distribution networks, which may preclude delivery to final destination or disrupt the flow of more critical materiel.

c. **Contract Surge and Sustainment Requirements.** As the Department of Defense continues to downsize and reduce materiel inventories, new strategies exist to assure access to commercial inventories and production capabilities to satisfy surge and sustainment needs. In forming partnerships to develop surge and sustainment capabilities with contractors, it may be essential to require efforts beyond, and sometimes inconsistent with, contractors' customary business practices. This necessitates the consideration of surge and sustainment requirements in business arrangements and long-term contracts. **These requirements include processes to ensure that contractor capabilities actually exist and to validate those capabilities though testing and DOD exercises.**

d. **Internet Materiel Ordering.** The development of DOD Internet-based materiel ordering systems has consolidated previously separated functions, for both customers and providers, into fast, convenient electronic outlets that are accessible worldwide and available around the clock. For example: The Department of Defense has developed the Internet-based electronic mall (EMALL) in response to the needs of DOD customers. EMALL provides a single point of entry for customers to find and acquire off-the-shelf, finished goods from the commercial marketplace with point, click, and ship GPC buying from commercial catalogs. The EMALL allows customers to comparison shop across stores for price and best value considerations. Benefits include cost savings though negotiated volume discounts on commercial catalog prices, reduced logistic response time through DOD ordering policies that complement traditional ordering systems, and single view status on all orders.

7. Defense Logistic Standard Systems and Procedures

Defense Logistics Standard Systems (DLSS), formerly referred to as Military Standard Logistics Systems, enable the use of computers in DOD logistic processes. They provide procedures for communicating requirements, moving materiel, and performing other tasks that enable logistic management function of global distribution. The DLSS is composed of 13 systems and supporting address directories. The DLSS functional procedures and supporting transactions are the backbone of DOD logistic systems, with over 70,000 customer activities and one billion transactions transmitted annually. The Services, federal and DOD agencies, defense contractors, and some allied governments use these standards. DLSS is described in DOD 4000.25-M series manuals for additional information. The major DLSS supporting global distribution are as follows:

a. **Military Standard Requisitioning and Issue Procedure.** MILSTRIP implements standard procedures, methods, rules data elements, formats, and time standards for the interchange of logistic information related to requisitioning, supply advice and status, materiel issue, shipment status, and materiel receipt, returns, and redistribution. The procedures govern the interchange of information for materiel commodities between supported activities and inventory control and distribution systems in the Department of Defense and other participating organizations.

For more information on MILSTRIP, see DOD Directive 4000.25-1-M, Military Standard Requisitioning and Issue Procedures.

b. **Military Standard Transaction Reporting and Accounting Procedure.**

MILSTRAP implements standard methods, policies, procedures, data elements, formats, and time standards for the flow-in inventory accounting information. Procedures are applicable between inventory control points, stock control activities, storage and depot sites, and posts, camps, or bases.

For more information on MILSTRAP, see DOD Directive 4000.25-2-M, Military Standard Transaction Reporting and Accounting Procedures.

c. **Reporting of Supply Discrepancy (RSD).** RSD implements rules, procedures, and formats for reporting materiel discrepancies to issuing supply activities and serves as the mechanism to document and report the status of corrective actions.

For more information on RSD, see DLAI 4140.55/SECNAV NIST 4355.18A/AFJMAN 23-215/AR 735-11-2, Report of Supply Discrepancy.

d. **Transportation Discrepancy Report (TDR).** The TDR system is a worldwide program for reporting various transportation discrepancies. The TDR system provides a mechanism to document facts to support loss and damage claims against commercial carriers or contractors.

For more information on TDR, see DOD Directive 4500.9-R, Defense Transportation Regulation, Part II, Cargo Movement.

e. **Defense Automatic Addressing System.** DAAS implements the concepts, rules, and procedures for the transmission of computer readable logistic documents to and from DAAS sites for automated routing between DOD logistic system providers and customers.

f. **Department of Defense Activity Address Directory (DODAAD).** DODAAD is the official DOD organizational identification and address file for all logistic system participants.

For more information on DODAAD, see DOD Directive 4000.25-6-M, Department of Defense Activity Address Directory.

g. **Uniform Materiel Movement and Issue Priority System.** UMMIPS is the DOD system that prescribes the standards for all DOD supply and transportation transactions.

For more information on UMMIPS, see DOD Directive 4410.6, Uniform Materiel Movement and Issue Priority System.

8. Conclusion

The enablers discussed in this chapter are tools available to enhance the global distribution system. Most importantly, integration of these enablers, using a supply chain management approach, is essential to the optimization of the overall global distribution system. Future enablers must apply the tenets and fundamentals of global distribution to ensure that they contribute to the improvement in the global distribution system.

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CHAPTER VI
OTHER MISSIONS

"Tell me your requirements, and I'll match them with capability."

Lieutenant General Daniel Schroeder, USA
Commander, Joint Task Force
Operation SUPPORT HOPE

1. General

Global distribution operations exist across the range of military operations. Global distribution doctrine must apply across the full range of operations and incorporate the multitude of organizations and interests that influence or participate with the Armed Forces of the United States in accomplishing these missions. Among the missions discussed in this chapter are MOOTW, multinational (which includes NATO and the United Nations [UN]), and interagency operations. **Global distribution of materiel supports these operations in virtually the same manner as during conventional or unilateral US joint force operations.** The US military has unique distribution capabilities that are often not within the capabilities and fiscal resources of other nations or organizations. These capabilities include the ability to rapidly distribute forces and materiel globally; a robust C2 capability; a sustained logistic capability through reliable global distribution operations; and the ability to provide force protection throughout operations. **US military distribution capabilities most frequently requested are intertheater and intratheater airlift; infrastructure repair (e.g., port and airfield, road construction); ground transportation of personnel, equipment, and materiel; use of arrival and departure airfield control groups; and port and railroad operations groups.** There are many differences and some legal restrictions encountered, however, when providing (or receiving) distribution support to and from foreign military or civil sources and when participating in operations with other USG agencies, partner nations, NGOs, regional organizations, and IOs. The task of globally

Global distribution operations supporting MOOTW involve the same planning and execution considerations used during wartime missions.

distributing materiel becomes more complex as non-DOD customers are supported, materiel is sourced outside of traditional DOD channels, and supported missions diverge from conventional military operations. This chapter will discuss considerations and unique aspects impacting global distribution networks, functions, and elements during MOOTW, multinational, and interagency operations and address their impact on the global distribution system.

"For all our experience and compassion we in the relief business do not have the capacity to deal with such large-scale catastrophes without help. Help from the military is not something we should begin to take for granted or rely upon in all cases. But there are extraordinary circumstances that call for responses — manpower, equipment, expertise, transport and communications capacity — that only the military can deploy."

Phillip Johnson
President & CEO, CARE

2. Military Operations Other Than War

MOOTW encompass the use of military capabilities across the range of military operations short of war. MOOTW focus on deterring war, resolving conflict, and promoting peace. They can be executed to complement any combination of the other instruments of national power. In some MOOTW operations the Department of Defense may be the lead agency; often, the Department of Defense supports other agencies, such as the DOS in FHA operations.

a. As Figure VI-1 indicates, MOOTW may involve both combat and noncombat operations. All military operations are driven by political considerations, however, MOOTW are more sensitive to such considerations due to their overriding goal to prevent, preempt, or limit potential hostilities. The goal is to achieve national objectives as quickly as possible and conclude military operations on terms favorable to the United States and its allies.

For more information, see JP 3-07, Joint Doctrine for Military Operations Other Than War.

b. **Global Distribution Considerations.** General logistic considerations for MOOTW apply directly to the task of providing global distribution of materiel. In MOOTW, global distribution capabilities may be employed in quantities disproportionate to their normal military proportions or roles, and they may be utilized to accomplish nonstandard tasks. Planners must be aware that overextending these capabilities may jeopardize the ability to support combat operations should they occur. Often in these operations, broad multilateral participation is solicited as a means to share or control costs. Given this factor, there is a need for close coordination with IOs, NGOs, and local civilian agencies operating within the same areas. Therefore, it is just as important to apply the global distribution fundamentals, tenets, planning considerations, and the global distribution processes covered in this doctrine to planning and execution of these diverse operations. Global distribution considerations in MOOTW include the following:

- **Mission Focus.** Logistics, and therefore global distribution of materiel, is particularly susceptible to "mission creep," especially in peace or humanitarian operations. Evolutions both on the ground and in the political context of a crisis could lead to unexpected changes in the role and hence the global distribution requirements of military forces.

- **Logistic Sophistication.** In some cases, the agencies and organizations with which US forces interact may be as or

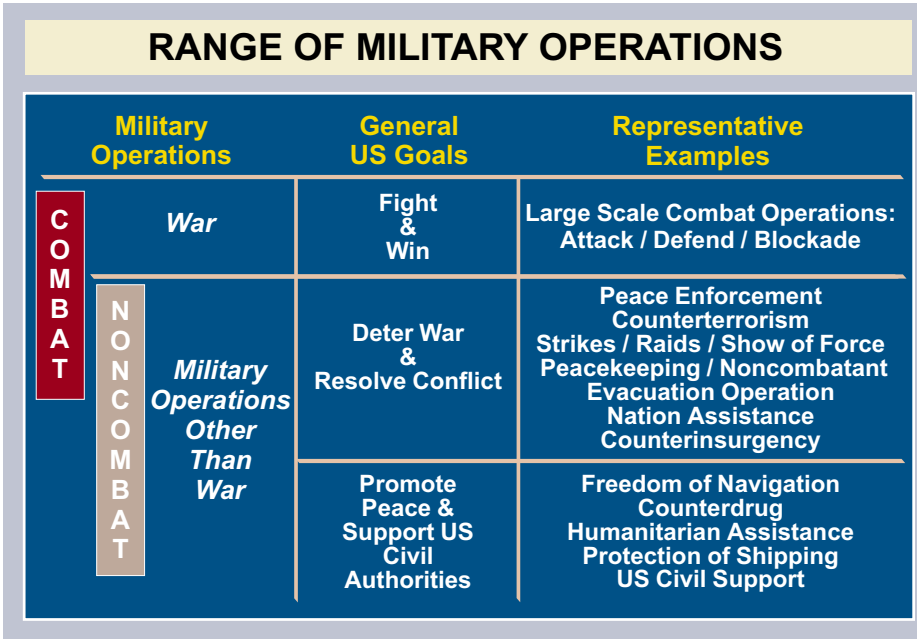

Figure VI-1. Range of Military Operations

more sophisticated in the application of supply chain management and distribution techniques as US forces. However, in most cases they may operate well below the level of logistic or distribution sophistication existing in support of US forces. This is a significant challenge for global distribution planners because it impacts the interoperability and compatibility of the four global distribution networks.

- **Sequencing the Force.** During some MOOTW operations, global distribution capabilities (such as commercial entities working on behalf of the Department of Defense or a Military Service or military units tailored to perform distribution tasks) may precede other military forces or may be the only forces deployed to support the operation. Contractor or military personnel may be deployed to a foreign nation to support either US or multinational forces and may continue that support after the departure of combat forces. Global distribution networks and functions must effectively transition with political and mission objectives to provide the operating force required support.

- **Assess Impact on Host Nations.** Distribution planners must analyze the capability of the HN economy to accommodate distribution requirements and other logistic support required by US or multinational forces and exercise care to limit adverse effects on the HN economy. Global distribution planning must consider the impact of each element of global distribution of materiel on the local HN economy and materiel sources.

- **Assess Transportation Infrastructure.** Transportation infrastructure must be considered early in mission analysis. The physical networks, as defined in Chapter I, "Global Distribution Concepts," must be assessed, particularly those in underdeveloped countries where their status will be in question. Delay in completing the transportation assessment

Broad multilateral participation is often solicited for MOOTW as a means to share or control costs.

directly impacts the flow of personnel and materiel into and throughout the operational area. Additional forces may be required to build supporting transportation infrastructure because this impacts follow-on force closure as well as delivery of humanitarian cargo. In addition, procedures must be established to coordinate movement requirements with other participants in the operation.

3. Multinational Operations

"Multinational operations" is a collective term describing military actions conducted by forces of two or more nations, typically organized within the structure of an alliance or coalition. An alliance is the result of formal agreements (e.g., treaties) between two or more nations for broad, long-term objectives that further the common interests of the members. A coalition is an ad hoc arrangement between two or more nations for common action. **The fundamental difference from unilateral US joint operations is that the participating forces represent sovereign nations.** This fact has profound implications for how the United States may organize, plan, and execute global distribution of materiel. Unique command relationships, legal constraints, and often dramatically different logistic standards and capabilities of participants must be addressed during planning. Sovereign nations do not generally give multinational force commanders (MNFCs) command of their forces, but MNFCs are likely to have OPCON over forces from participating nations, including logistic forces and capabilities that may be assigned to support the operation. Varying standards and capabilities in distribution networks and functions affect the broad nature of global distribution support to the multinational force (MNF) and complicate efforts to integrate and synchronize C2, funding and reimbursement mechanisms, allied contributions, and other logistic support. **A key objective during multinational operations is to forge a partnership among participating nations executing global distribution of materiel.** Executed correctly, this partnership should improve operational support by allowing participating nations to share the burdens associated with participating in such operations.

For more information, see JP 4-08, Joint Doctrine for Logistic Support of Multinational Operations.

a. **Organization of Multinational Logistics.** MNFCs may have directive logistic authority when consent is provided by participating nations. Normally, requests will be made to national commanders to assume organizational logistic missions in support of MNFs. In some cases, the MNFC may exercise OPCON over national logistics units. OPCON within a multinational operation is defined as agreed upon by participating nations. By definition, OPCON does not extend, in and of itself, to the logistic resources and capabilities that are organic to the forces under OPCON to the MNFC. Additionally, the MNFC may establish a logistics coordination or control center headed by a senior logistic coordinator to control or coordinate common or theater-level distribution support within the operational area. There are five generally accepted methods of executing cooperative logistics in an MNF that apply to global distribution operations. Regardless of the support arrangement selected, it is imperative that national decisions and commitments to lead or participate in such arrangements are resolved early in the planning process. Legal restrictions on the transfer of goods and services to foreign countries make it difficult for the United States to assume these roles.

- **Individual National Contributions to Multinational Support.** In addition to pooling, nations individually may make logistic assets available for support of the MNF.

- **Host-Nation Support and In-Country Resources.** HNS can be viewed as a special case of lead nation (LN) support, in which the LN is a host or transited nation. HNS can be an important and, in some cases, essential source of support for an MNF. These include transportation, civilian labor, services, rear area protection, petroleum, telecommunications, supplies, health services, facilities and real estate, and contracting. This support is not limited to an operational area but may extend to nations through or over which US forces need to traverse en route to a specific operational area.

- **Bilateral and/or Multilateral Arrangement.** Multinational logistic arrangements encompass arrangements made between or among two or more nations for the **routine and/or emergency** support of designated logistic supplies and services. These arrangements may establish conditions for **mutual support** between or among nations or the provision **nation or nations.**

- **Lead Nation.** In the LN concept, one nation accepts responsibility to provide one or more logistic functions within a specified geographic area in support of the MNF.

- **Role Specialist Nation (RSN).** In a role specialization agreement, one nation accepts responsibility to provide a particular class of supply or service for all or most of the MNF. This option should be considered when a participating nation possesses unique logistic strengths. The major difference between RSN and LN is that the RSN arrangements usually are single-item or single-service oriented, while the LNs are concerned with providing or coordinating multiple services within designated geographical regions.

- **Pooling.** One of the most effective ways for nations to leverage logistic capabilities in a multinational operation is through pooling of assets. Nations may place national assets within a loosely coordinated and organized pool for MNFC tasking; organizations may decide to participate in a multinational integrated logistic unit.

b. **Global Distribution Considerations.** Some of the major distribution-related factors that must be coordinated or controlled by the MNFC during multinational operations include the following:

- Establishing ground rules and qualification requirements for national elements to participate in the MNF. Though many nations will offer force contributions to a given operation, the MNFC must assure that those forces can be operationally and logistically integrated into the force as a whole. Either the MNFC or another international body must validate that the force contributed has the materiel support resourced and available to it through national, multinational, or bilateral distribution channels.

- Considering centralization of HNS distribution expertise (to include distribution functional expertise as well as legal, financial, acquisition, communications, and administrative) to ensure that the MNF's total requirements are known and prevent competition for resources between partners. Allocation of this support is based on command priorities that best support the operational objectives. Additionally, nations must agree on whether an MNFC will have the authority to conclude HNS arrangements or whether prior national approval is required.

- Ensuring that the mutual logistic support for US and other forces and civilian agencies is in accordance with existing legal authorities. The responsibility for providing global distribution support to national component forces ultimately resides with their nations, unless previously agreed upon in alliance implementing arrangements (IAs), coalition agreements, or bilateral agreements among participating nations.

- Identifying common supplies and services that might be provided by one nation or a multinational organization. Of particular importance is the exercise of coordination, if not control, on procurement and acquisition activities inside the multinational force operational area.

- Establishing if, when, and how an MNFC will be provided authority over national logistic assets to include authority for cross-leveling national supplies under emergency conditions. This requires a mutual decision between participating nations.

- Early availability of and application for multinational logistic funding for establishing cost-effective contracts, multinational headquarters (HQ), and general and/or common support.

- Developing policies and procedures to account and reimburse for logistic services and supplies exchanged between the United States and other nations under ACSA authority.

- Establishing responsibility and release procedures for national assets.

- Developing the means to maintain national asset accountability and ITV from the national sustaining base to the front line units.

- Ensuring compatibility and interoperability of communications networks to include information system interfaces between national logistic organizations of the MNF and national support systems. This includes integrating information classification requirements.

- Prioritizing, allocating, and using common infrastructure capabilities (e.g.,

Multinational operations involve the forces of sovereign nations, which has profound implications for the organization of forces and logistic support.

ports, airfields, and roads) to support military and civil operations.

- Identifying and arranging for those international agreements that can facilitate the provision of multinational logistic support where appropriate.

- Determining, in consultation with the joint force environmental lead agent and partnering nations, the environmental management standards applicable to the operation.

c. **Legal Considerations.** Normally, USG acquisitions must be accomplished by means of a contract governed by the Federal Acquisition Regulation and/or the Defense Federal Acquisition Regulation Supplement. Transfers, cross-leveling, or redistribution of defense goods and services to foreign nations, even in the midst of operations, must be accomplished in accordance with and through proper legal authorities, such as under ACSA authority, foreign military sales (FMS) cases, the Arms Export Control Act (AECA), Foreign Assistance Act (FAA), the Federal Property and Administrative Service Act, the Fly America Act, the Cargo Preference Act, and annual DOD Authorization and Appropriation Acts. These laws impact every aspect of global distribution operations. **US and other multinational forces must operate under the limitations imposed by SOFAs and US, HN, foreign nation, or international laws and regulations.** These laws guide the exchange of logistic support and commodity distribution among nations. There are a number of legal provisions that stipulate the manner in which US forces can exchange logistic support with other force contingents. These legal provisions provide the parameters under which US commanders can participate in multinational logistic arrangements.

- **Acquisition and Cross-Servicing Agreements Authority.** Under ACSA, the Secretary of Defense can enter into agreements for the reciprocal provision of logistic support, supplies, and services on a reimbursable, replacement-in-kind, or exchange for equal value basis. These agreements can be with eligible nations and IOs of which the United States is a member. The ACSA is a broad overall agreement that is generally supplemented by an IA. The IA provides points of contact and specific details of the transaction and payment procedures.

Orders for logistic support, supplies, and services may be placed under an IA or under the basic agreement, depending on the circumstance. Neither party is obligated until the order is accepted.

•• Logistic support, supplies, and services include food, billeting, transportation (including airlift), POL, clothing, communications services, medical services, ammunition, base operations support (and construction incident to base operations support), storage services, use of facilities, training services, spare parts and components, repair and maintenance services, calibration services, and port services.

•• Items that may not be acquired or transferred under the ACSA authority include weapons systems and major end items of equipment (except for temporary use of general purpose vehicles and other nonlethal items of military equipment not designated as significant military equipment on the US munitions list).

- **Arms Export Control Act.** AECA FMS agreements between the United States and a foreign country or IO are the preferred arrangements for operational support. They are the preferred means for routine, recurring resupply requirements reasonably available from the United States through FMS. The primary instruments that make up an FMS arrangement are the letter of request from the country or organization requesting logistic support and the letter of offer and acceptance (LOA) from the United States. LOAs may be a lengthy process. Under an LOA, a blanket ordering arrangement (BOA) may be included to establish an account for ordering a wide range of undefined materiel requirements, unknown at the signing of the LOA. A BOA is particularly useful for food, fuel, medical, ammunition, unscheduled repairs, and repair parts. US FMS procedures and methods of financial accounting are implemented by DOD 5105.38-M, *Security Assistance Management Manual*. Transportation and other physical distribution functions for materiel purchased from the United States and moving to the operational area (particularly ammunition) may be provided, utilizing the buying country's assets and handling system and thereby

Distribution of goods and services during multinational operations is governed by significant legal considerations and must be accomplished in accordance with and through proper legal authorities.

reducing the transportation requirements on the DTS during a crisis.

- **Foreign Assistance Act.** The FAA contains a broad range of authorities to provide military goods or services to foreign countries or IOs for multinational operations. The two most significant sections relating to global distribution are Section 506, which provides authority for DOD drawdowns to friendly foreign nations for unforeseen emergencies, and Section 607, which allows the Department of Defense (and other government departments) to provide commodities and services to friendly foreign countries or IOs on an advance of funds or reimbursable basis. By law, Section 506 of the FAA cannot be used to provide routine logistic support. Application of support under Section 506 requires Presidential authorization and Congressional notification. Within the Department of Defense, the drawdown process is generally managed by the responsible Service materiel commands using security assistance personnel and information systems. The geographic combatant command's role is usually limited to alerting the NCA that a military emergency exists and coordinating the delivery of support with the foreign recipient and responsible DOD materiel commands. In rare cases, the drawdown may be provided from the operational stocks of a Service component of the respective geographic combatant command. Section 607 may be used to provide routine logistic support under an LN or RSN arrangement, but is generally used only in those situations in which other support authorities, such as FMS agreements, cannot be used. In the past, the Department of Defense has provided significant logistic support under section 607 to the UN. Support has been provided both by Service components operating with the UN and CONUS-based materiel commands and defense agencies. Because foreign requests for support usually require coordination with the DOS, as well as approval by the Secretary of Defense, this authority is not well suited for unforeseen or emergency situations. Also, since DOD regulations require the DOD component or agency providing support to separately account for and bill for such support, Service component commanders must be prepared to commit dedicated resources to manage these transfers.

- **The Federal Property and Administrative Service Act.** The Federal Property and Administrative Service Act provides authority for any USG agency, including the Department of Defense, to transfer foreign excess personal property (FEPP) to foreign countries for foreign currency, substantial benefits, or the discharge of claims. The narrow definition of FEPP and the procedural requirements for transfers under this law limit its operational utility. The Federal Property and Administrative Service Act is not well suited for emergency transfers. It is best used for transfer of overseas property for which the DOD requirement is limited and the host foreign country is willing to accept. In operational terms, it is most applicable in the termination or redeployment phases of a multinational operation. Although DOD regulations assign the Services and DLA the responsibility for screening and negotiating the transfer of FEPP, Service components of geographic combatant commands are well placed, particularly during multinational operations, to identify potential FEPP and foreign recipients. Geographic combatant or component commanders who wish to initiate FEPP transfers should coordinate with the appropriate Service logistic staff and/or with local DLA representatives.

- **Fly America Act and the Cargo Preference Act.** The Fly America Act and the Cargo Preference Act are two authorities that apply to all USG-funded transportation operations.

  •• The Fly America Act prohibits the expenditure of US funds for air transportation aboard a foreign air carrier if a US air carrier is available to provide such a service, even if the foreign air carrier provides less costly and more convenient service. Since the vast majority of DOD-funded air transportation, operational or otherwise, has historically been provided by US-owned or chartered air assets, this authority imposes few practical constraints on US operational commanders. In certain circumstances, however, it may apply. For example, US forces may be prohibited from using appropriated funds and the acquisition-only authority of the ACSA to contract with a foreign air carrier for transportation between two destinations outside the United States if a US air carrier was "reasonably available." Conversely, the Fly America Act may not apply if the same service was provided by a foreign government as reimbursement for US supplies or services provided under an ACSA. Operational commanders should consult staff legal counsel to determine the precise applicability of the Fly America Act to operational air moves.

  •• The Cargo Preference Act requires that all items procured for or owned by the Services and defense agencies be carried exclusively in US-flag vessels that are available at fair and reasonable rates. Since the Department of Defense has the capability and experience to quickly acquire US-registered vessels, there are few instances in which it would constrain the ability of US forces to participate in multinational operations. As with the Fly America Act, this law could limit a US commander's ability to accept sea transportation of US defense goods as reimbursement for US supplies or services provided under an ACSA. In this case, the responsible US commander or ordering authority should negotiate an alternate form of reimbursement and/or consult staff legal counsel.

- **Annual DOD Authorization and Appropriation Acts.** The authorities described above provide a broad legal framework for US participation in a range of multinational logistic operations. In addition, these standing legal authorities may be supplemented and, in some cases, overridden by provisions contained in annual DOD authorization or appropriations acts. Combatant commanders must ensure that subordinate forces are informed of such legislative restrictions and provide appropriate guidance for adhering to them.

d. **North Atlantic Treaty Organization.** NATO operations are multinational operations conducted through the NATO alliance. NATO logistic support principles and policies are contained in NATO standardization agreements and military committee directives. **Global distribution of materiel supporting NATO operations must operate within the overall context of NATO logistic policies and procedures.** Basic NATO considerations are as follows:

- **NATO Treaty Considerations.** Alliance operations are conducted under the auspices of a formally chartered defense organization that consists of several nations united by treaty in the promotion and defense of common security interests. NATO logistic operations are governed by the treaty

agreements described below. These treaty agreements impact every aspect of global distribution operations.

•• NATO and member nations have a collective responsibility for the logistic support of NATO's MNFs.

•• Provision of appropriate logistic resources is fundamentally a national responsibility and should be assured either individually or by cooperative arrangements.

•• NATO commanders have coordinating authority for overall logistic planning.

•• Decisions on, and planning for, the implementation of the different modes of multinational logistic support such as multinational integrated logistic support, role specialization, commonly funded resources, and the LN principle need to be undertaken at an early stage of operation planning.

•• National components should be logistically self-sufficient for an initial period, with continued follow-on support by the responsible nations as agreed upon between nations and NATO commanders.

•• Appropriate authority should be given to the NATO commander to control certain logistic assets, as made available by nations, and as agreed upon between nations and NATO commanders. A sound balance should be kept between required military effectiveness and economies of scale.

•• If engaged, non-NATO nations must be involved in the planning process at the earliest opportunity.

•• If required, close cooperation and coordination will be established with the UN, the Partnership for Peace nations, the Western European Union, the Organization for Security and Cooperation in Europe, NGOs, and IOs as appropriate.

- **Organization of NATO Logistics.** Logistic support options for NATO operations range from a totally integrated multinational logistic force using LN or RSN options to purely national support. Normally, the NATO force will be

Global distribution of materiel supporting NATO operations must operate within the overall context of NATO's logistic policies and procedures.

supported through a combination of the various options available. Regardless of the options used, national commanders as well as the NATO commander remain responsible for the sustainment of the forces involved in NATO operations. In addition to the organizational options discussed earlier (LN or RSN), NATO operations may employ the following mutual logistic support arrangements.

•• **Multinational Support Arrangements.** These agreements may be concluded bilaterally or multilaterally among nations and/or between nations and NATO authorities. NATO commanders may be tasked to mediate and coordinate such arrangements. The intent is to ease the individual logistic burden and enhance the overall logistic efficiency and economy of the operating force. Multinational support arrangements can be implemented for each type of logistic support or service to help avoid duplication of effort and redundancies. For the United States to participate in these arrangements, the agreements must be prepared in accordance with the ACSA discussed above.

•• **Commonly Funded Logistic Resources.** In this approach NATO funds or pools monetary contributions to obtain the assets identified as eligible for common funding for the entire force or portions of the force. They may include, but are not limited to, the following assets and services: (1) infrastructure and services associated with that infrastructure as well as real estate, such as depots, airfields, HQ, camps, ports, and LOCs; (2) operating and coordinating the use of infrastructure and real estate; (3) communication and information systems assets; and (4) logistic engineering.

•• **Multinational Integrated Logistic Support.** This logistic support option occurs when two or more nations agree to provide logistic assets to a multinational logistic force under OPCON of a NATO commander for the logistic support of the MNF. This is an effective support option when one single nation is capable of providing the nucleus of the unit and/or the command structure around which the whole unit can then be formed with other national augmentations and contingents. Such multinational organizations can effectively avoid duplications of effort and redundancies within the logistic system of an operation. Compensation and/or reimbursement are subject to an agreement between the parties involved.

•• **Local Contracting.** An essential enabler of this common funding aspect is NATO's capability to access inventories or obtain physical distribution support through NATO-managed theater support contracting. Contracting support for NATO forces can be used where the use of commercial contracts supports the military mission, is economically feasible, and keeps military assets available for higher priority tasks. The NATO force should monitor and adjust the extent of reliance on contracting based on the operational situation. Since NATO common and centralized funding is limited to specific categories of goods and services, most contract actions will be funded nationally. NATO will, however, coordinate national contracting efforts to ensure enhancement of the contract process, reduction of competition between nations, and realization of economies of scale. The prudent use of contracting coordinating activities, such as the NATO Maintenance and Supply Agency, as well as the cooperation of nations is essential to providing effective distribution support.

For more information on NATO logistic operation, see Allied Joint Publication 4, Allied Joint Logistics Doctrine.

e. **UN Operations.** UN operations are multinational operations conducted through an IO. These operations are conducted under the authority of a UN resolution and under the leadership of a UN military force commander and a representative of the Secretary General of the UN. Operations with or under UN forces require distribution planners to become familiar with the unique aspects of how the UN approaches distribution and other logistic support of military elements performing UN missions. The UN logistic system requires member states to be self-sufficient at the unit level for an initial period of time, normally 60 to 120 days. This allows the UN to organize a logistic structure, acquire real estate and facilities, and establish contracts and local memoranda of understanding to provide support for the IO. A UN survey and assessment team will evaluate operational and logistic requirements and develop planning data for sustainment. There are numerous laws dealing with the provision of support to the UN. Logistic planners must consult with their Staff Judge Advocate when planning logistic support for a UN operation.

- **United Nations Considerations.** Coalitions can form within the framework of a formal IO or through one of the nations in the coalition (typically the United States in operations in which it participates). Characteristics of UN and/or coalition operations that impact global distribution operations include the following:

  •• UN operations use established UN policies and procedures, which may not be generally familiar to US or other national commanders.

  •• UN operations involve little prior requirements determination and operational planning. Consequently, standardization and/or interoperability among participants is likely to be quite low.

  •• UN operations are more likely to be ad hoc operations when compared to the operations conducted by regional alliances.

Operations with UN forces require distribution planners to become familiar with the unique aspects of how the UN approaches distribution and logistic support.

•• The UN chief administrative officer (CAO) does not work for the UN force commander, but reports to the Special Representative of the Secretary General. The UN civilian logistics infrastructure, including the budget officer, reports to the CAO. Generally, logistic problems will not be resolved unless the CAO is involved in the process.

•• National standards may exceed UN standards, (e.g., consumption rates, space requirements, and safety levels). Sophisticated multinational military equipment may require different standards of support than the UN has agreed to provide or fund. UN standards must be clearly understood in regard to level and quality of support provided and funded. Logistic support that is significantly more extensive than that outlined in the UN agreement may not be reimbursable.

•• The coalition must be prepared to bring its own support and execute its own distribution operations in the areas where UN-provided support is deficient.

- **Organization of UN Logistics.** The nation or IO that has the lead in organizing the coalition is challenged to orchestrate the logistic support of disparate members of the coalition. The options for organizing UN logistic support are outlined below. These options impact every aspect of global distribution operations.

•• **Lead Nation Concept.** Similar to multinational and NATO operations, a UN LN is assigned to provide support to other nations under a reimbursable agreement. The LN assumes responsibility for providing an agreed upon list of logistic support to other nations. Other elements of the force rely on the LN for the bulk of their needs. National contingents should have representation within the LN's logistics organization. As mentioned previously, legal restrictions on the transfer of goods and services to foreign countries make it difficult for the United States to take on this role.

•• **Force Logistic Support Concept.** In most cases, the UN will ask a member state, or states, to form a force logistic support group (FLSG). The FLSG incorporates logistic units from participating nations. A state accepting the FLSG role will be responsible, along with the Chief Logistics Officer at the UN force HQ, for the establishment of local contracts to support the force. Even with an FLSG, member states remain responsible for unique national elements of resupply, such as repair parts, clothing, food, and major end item replacement.

•• **Civilian Contractor Concept.** The UN will attempt to economize logistic support by using civilian contractors. The goal is to achieve the most economical logistic organization that meets the demands of the UN force and releases military manpower for other operational requirements or redeployment. The UN force HQ will coordinate the contracting process. UN contracting is not organizationally part of the logistic division but rather the purchasing and transport services division. Additionally, the UN procurement process is very decentralized, with each agency using its own procedures.

4. Interagency Operations

Interagency operations involve elements of the Department of Defense and engaged USG agencies, NGOs, regional organizations, and IOs. Increasingly, the common thread throughout all major operations, whether in war or MOOTW, is the broad range of

agencies — many with indispensable practical competencies and major legal responsibilities — that interact with the Armed Forces of the United States. **Global distribution planning and operations must be tailored to account for these legal considerations and partner agency competencies.**

For additional information, see JP 3-08, Interagency Coordination During Joint Operations, Volumes I & II.

> *"We must recognize that the Department of Defense contribution to interagency operations is often more that of an enabler (versus decisive force, a function we are institutionally more comfortable with). For example, in Rwanda, the military served as an enabling force that allowed the NGOs and PVOs to execute their function of humanitarian relief. A key component to our success in Rwanda was the fact that we consciously stayed in the background and withdrew our forces as soon as the enabling function was complete."*
>
> **General George A. Joulwan, USA**
> **Commander in Chief,**
> **US European Command**

a. **General.** Military forces have long coordinated with the HQ or operating elements of the DOS and DOT, the Central Intelligence Agency, and the adjutants general of the 50 states and four territories. Increasingly, though, participants include other USG agencies, partner nations, NGOs, regional organizations, and IOs, such as NATO and the UN as well as the agencies of the host country. The difficult nature of interagency operations demands that commanders and joint planners understand the interagency coordination process. The CMOC is the primary coordination center established and tailored to assist a unit in anticipating, facilitating, and coordinating civil-military functions and activities pertaining to the local civil population, government, and economy. **The CMOC may be useful in coordinating with HN distribution infrastructure and other physical distribution capabilities.**

b. **Domestic Support Operations.** Military operations inside the United States and its territories, though limited in many respects, may include military assistance to civilian (MACA) agencies, and provides DOD support to civil authorities for domestic emergencies that result from natural or manmade disasters or military support to civilian law enforcement agencies. Distribution operations in support of these contingencies are guided by the following:

For more information, see DODD 3025.15, Military Assistance to Civil Authorities.

- Federal response to major disasters or emergencies inside the United States are implemented through the Federal response plan (FRP). The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Disaster Relief Act of 1974, Public Law 93-288, as amended) is the statutory authority for USG domestic disaster assistance. It gives the President the authority to establish a program for disaster preparedness and response that is delegated to FEMA. The act provides procedures for declaring an emergency or major disaster, as well as the type and amount of federal assistance available. Twenty-eight federal departments and agencies support the operations of the FRP through execution of their assigned functional responsibilities. The FRP applies to natural disasters such as earthquakes, forest fires, hurricanes, typhoons, tornadoes, floods, and volcanic eruptions; manmade emergencies such as radiological or hazardous material releases; and other federal emergencies identified under the act.

- The FRP assigns responsibilities to executive departments and agencies in

grouped emergency support functions (ESFs), depending on the situation. Although FEMA continues as lead federal agency, other agencies may be designated as "primary" or "support," based on their core competencies in 12 ESFs in the FRP. For example, under the FRP, the DOD's US Army Corps of Engineers has the responsibility as "primary agency" for Public Works & Engineering (ESF #3). As a primary agency, the Department of Defense plans, coordinates, and manages the federal response required by this function. The Department of Defense also has specific responsibilities as a "support agency" for all other ESFs.

- While the Secretary of Defense retains the authority to approve the use of combatant command resources for MACA, the Secretary of the Army is normally the DOD Executive Agent for executing and managing MACA and responds to the Director of FEMA through the NCA. The Secretary of the Army, as executive agent, may assign tasks directly to the Military Departments, DOD agencies, the US Army Corps of Engineers and, in coordination with the Chairman of the Joint Chiefs of Staff, any military forces assigned to a combatant command. The Secretary of the Army executes and manages MACA operations through DOMS in the Department of the Army staff except for ESF #3, for which the US Army Corps of Engineers is the primary agency, and those consequence management operations directed by the Assistant Secretary of Defense for Special Operations and Low Intensity Conflict. Navy and Air Force deputies support the DOMS to ensure optimum Service integration.

- Once a decision to employ military assets is made, the supported combatant commander (in this case USJFCOM, US Pacific Command, or US Southern Command) uses the different and complementary capabilities of each Service to accomplish the disaster assistance mission. In disaster assistance, global distribution operations will likely be the main effort for military forces. **The military force supporting the operations, usually a JTF, should be capable of organizing and integrating DOD global distribution system**

Distribution operations supporting civil authorities are coordinated through the Director of Military Support on the Department of the Army staff and with FEMA.

capabilities to provide emergency materiel assistance. A wide variety of the classes of supply as well as all types of services may be required. The fundamental considerations for global distribution planning and execution for disaster assistance are the scope and duration for which organic military distribution capabilities and materiel inventories will be required until the commercial sector or other agencies can perform or provide these functions.

For additional information see JP 3-07.7, Joint Tactics, Techniques, and Procedures for Domestic Support Operations.

c. **Foreign Operations.** The DOS advises and assists the President in foreign policy formulation and execution. For the Department of Defense, this may involve bilateral and multilateral military relationships, treaties involving DOD interests, technology transfer, armaments cooperation and control, FHA, and peace operations.

- **Planning Interagency Operations.** Within a theater, the geographic combatant commander is the focal point for planning and implementation of theater and regional military strategies that require interagency coordination. The combatant commander must give detailed consideration to the ways in which global distribution operations are applied. Initial concepts of operations and the supporting global distribution concept will require review to assess the feasibility and consider the impact of related activities by interagency participants, particularly with regard to distribution and logistics. For example, primitive seaport and airport facilities may limit the ability to move required amounts of supplies and constrain the collective effort. Planning information is normally available through the country team, which usually is in contact with relief organizations in the crisis area. In other situations, it may be unacceptable or damaging to local economies for the United States to acquire or procure materiel inventories in a country or in nations immediately surrounding the crisis area while they are trying to recover from a natural disaster or conflict. Therefore, direct or indirect refinement of the military mission and the distribution concept should be conducted with other USG agencies and NGOs to identify and minimize mutual interference and coordinate strategic aims and objectives.

- **Key Information Sources.** The Defense Attaché Office (DAO) and the security assistance organization (SAO) are key US sources of information for organizing distribution support for interagency operations in foreign countries. These organizations interact with their HN counterparts on a daily basis and can be invaluable in arranging or coordinating distribution support through HN sources.

  •• **US Defense Attaché.** The US DAO is comprised of the Service attachés assigned to the US embassy. The Defense Attaché is normally the senior Service attaché assigned to the embassy. These attachés are liaisons to their HN counterparts and usually are invaluable sources of information for use by combatant commander and defense agency planners in developing practical and acceptable global distribution support plans for an operation. Additionally, attachés assist the FID programs by exchanging information with the combatant commander's staff on HN military, social, economic, and political conditions.

•• **Security Assistance Organization.** The SAO is the most important FID-related military activity under the supervision of the ambassador. The SAO assists HN security forces by planning and administering military aspects of the security assistance (SA) program. SA offices also assist the US country team in communicating HN assistance needs to policy and budget officials within the USG. In addition, the SAO provides oversight of training and assistance teams temporarily assigned to the HN. This organization can also be an important source of information and access to combatant command and agency planners in establishing global distribution support to US forces.

APPENDIX A
COMMANDER'S CHECKLIST FOR GLOBAL DISTRIBUTION OF MATERIEL

1. General

Materiel distribution operations described in this publication cover the range of supply chain considerations needed to promote confidence in the warfighter that global distribution operations will provide balanced, agile, and precise support to joint force missions across the range of military operations. The checklist provided below offers to the supported combatant command staff, as well as other participants in the global distribution system, a planning tool for developing integrated global distribution support.

2. Planning

a. **US Forces Planning Considerations**

- Are distribution requirements (physical distribution and inventory decisions) included in operation plans in concept format and OPLANs?
- Do plans specify how the physical distribution flow will be controlled and integrated between strategic, operational, and tactical levels?
- Is planned distribution support tailored to mission requirements and priorities?
- Do plans consider security for distribution operations?
- Has the flow of sustainment materiel been integrated into the overall deployment and reflected in strategic transportation priorities?
- Has the impact on physical distribution, commercial and/or HN inventory sources due to refugees, displaced persons, MNFs, and other competing requirements for distribution capabilities been considered?
- Are existing and potential contracting support capabilities incorporated into distribution plans? Do they complement organic military capabilities?
- Has engineering intelligence been collected, assessed, and included in the CESP?
- Are requirements for the DLA liaison cell and DLA contingency support team established?
- Have organic military capabilities for theater distribution support forces been included in plans? Are they flowed in the TPFDD when they are needed?
- Is use of one or more of the Services civil augmentation programs (i.e., LOGCAP, AFCAP, CONCAP) planned? Have coordination authorities been established? What role is envisioned for these contractors in support of theater distribution?
- Has contractor need for strategic and/or theater lift been assessed?
- Are system support contractors capable and/or willing to perform their tasks under anticipated operational conditions? Have system support contracts been

reviewed to ensure that they are executable in a deployed operational environment? Are system support contractors trained and equipped to continue operations under all potential theater operational environments?

- Have HN diplomatic clearances and POD access, overflight, and landing clearances for distribution operations been established? Do SOFA and other agreements cover the flow of materiel moving through commercial distribution systems to US forces or contractors supporting US forces?

b. **Multinational Planning Considerations**

- Do plans provide a summary of the requirements, taskings, and concept of multinational operations that is supported by logistic planning? Are national, role specialization, LN, and HN responsibilities defined for the various logistic tasks?

- Have all nations participating in the operation either provided for distribution support for their forces or arranged with the MNF or bilateral arrangements for this support? Have they provided or obtained the fiscal resources to sustain distribution support of their force contributions?

- Are the multinational logistic objectives specified? Are they achievable with respect to the plans? Are national procedures for strategic distribution of materiel (air and sea) delivery established?

- Are levels of accompanying inventory or supplies with national formations addressed?

- Is a known or estimated customer wait time provided from national industrial bases to the theater?

- Are procedures included for support to, from, and between other multinational members and Services?

- Are the national theater inventory stockage objectives by class of supply or national distribution system concepts specified and complementary to the MNFC's intent?

- Are inventory buildup requirements specified? Are national operational packages on hand to support multinational operations until the in-country distribution and/or logistic support system is established?

- Are national distribution and resupply time frames consistent and reliable to support the operational concept?

- Have multinational critical and common items and inventory sources been identified? What provisions have been made for an integrated approach to fill critical items and items common to the MNF? Have they been quantified?

- What distribution support will be provided to the MNF as a national responsibility, a cooperative responsibility, solely by one nation, by HNS, and from contracted sources?

- What multinational physical distribution support must be provided to the HN or other multinational partners?

- Are provisions made for national emergency distribution or resupply?

- Are there MNF provisions for distribution support of displaced civilians, prisoners of war, or NGOs?

- Are national reserve materiel inventories stored in theater or at the national industrial base? Are call forward procedures specified? Are there political constraints on the redistribution of this materiel to other parts of the same theater or to another theater?

- Can national reserve materiel be distributed to MNF partners?

- Has the use allocation of various SPODs, SPOEs, APODs, and APOEs among multinational partners been specified?

- Do OPLANs specify which MNF logistic elements will provide the support required?

- Are the national materiel distribution flow and the deployment flow of national forces from national bases balanced with the theater distribution and JRSOI capabilities? Does national distribution support complement the theater logistic plan?

- Is the amount of HN distribution support to be provided to various multinational partners stated in terms of workload to be performed or in MNF equivalents?

- Will unsourced multinational logistic force structure requirements be offset with HN, contracted, or interservice support?

- Is HN distribution support accounted for in national deployment plans to ensure that functions are covered and organic force structure is appropriately decremented or reassigned?

- Has commercial communications capability been allocated in sufficient quantity and quality to support national and multinational distribution operations?

- What types of critical distribution-related information (from planning, asset visibility, ITV, and business operating information systems) will be shared among multinational partners? How will it be shared?

- Is there a multinational mechanism to coordinate the procurement of in-theater inventories by all national forces? Is there a policy enforcement mechanism to assure compliance with multinational procurement strategies?

3. Global Distribution Networks

a. **Physical Network**

- Have infrastructure assessments been conducted?

- Have infrastructure shortfalls been addressed either for resolution or as constraining factors in distribution plans?

b. **Information Network**

- Is theater information network adequate to support distribution operations systems?

- Where and how will ITV information be obtained? How will it be integrated into distribution operations?

- Do business processes and AIS and AIT adequately support TAV and ITV data capture?

- Is Internet access adequate to support Service component requirements for vendor and DOD requisitioning systems? Do Service components and materiel providers have alternate methods and procedures?

c. **Communications Network**

- Are all the AISs required to support global distribution operation identified so that the communication infrastructure can be appropriately sized during the planning process?
- Is there a robust communications capability available to support global distribution operations? Are communications capabilities to support distribution operations included in joint communications plans?
- Will the communications network support classified distribution information?
- Will the communications network provide adequate connectivity for logistic automated systems?

d. **Financial Network**

- Are critical materiels and war reserve items adequately resourced?
- Are funding and accounting responsibilities for cross-service provider arrangements established?
- Are funding and accounting responsibilities for multinational provider arrangements established?
- Are there adequate financial mechanisms and resources in place to obtain access to local inventories or physical distribution capabilities?
- Is sufficient bandwidth available to provide required voice, data, and video services?

4. Global Distribution Elements

a. **Requirements Determination and Stocking Policy**

- What is the status, quantity, and location of theater stocks and war reserve assets?
- Is critical materiel identified? Has the combatant commander or subordinate JFC established inventory target levels for accompanying supplies and for inventory objectives for critical materiel by phase of the operation?
- Can adequate quantities of critical materiel be available in theater, or in the transportation pipeline, or be available and shipped from CONUS to meet velocity needs of the supported force?
- Has surge requirements planning been conducted with CONUS strategic level provider organizations? Have the requirements for operational surge been positioned in theater or have strategic and/or intratheater lift resources been allocated to support timely flow from CONUS or other inventory source locations?

b. **Acquisition and Procurement**

- What is the level of GPC acceptability in theater?
- Is theater contracting support established?
- What single dominant user, CUL, and/or cross-servicing agreements may be established? When and how do Service component support processes transition to these CULT processes?

- What existing contractor support arrangements have been established? Can these support the planned expansion of operations?

- Are there arrangements for the use of non-US contracts by US forces?

- What HN sources for materiel and distribution support services are available in the operational area or in areas adjacent to the theater? Is it acceptable and consistent with political and military objectives for US forces to use these sources? What will be the impact on indigenous populations by the use of distribution-related materiel inventories and physical distribution capabilities by US forces?

- Are Service component product support arrangements compatible with combatant commander plans and policies?

- Are product support contractors included in customs and/or SOFAs and other HN agreements?

- What are the organic force structure alternatives needed in the event that product support contractors are unable to perform in theater? Has the flow of these capabilities been included in the TPFDD?

c. **Requisition Process**

- Are extant distribution velocity metrics consistent with the parameters of the operation? Does the combatant commander or Service components need to adjust the requisition and transportation priority designators of the support elements?

- Are Service component requisitioning methods compatible with theater communications and/or information network constraints?

- Is Internet access available for requisitioning?

d. **Physical Distribution and Transportation**

- Have joint distribution or CULT and storage and/or warehousing requirements been established?

- Is the JMC (if established) aware of materiel distribution requirements and the variety of military and commercial transportation capabilities available to support the JFC?

- To what degree is materiel distribution dependent on commercial air parcel delivery? How are commercial delivery arrangements integrated into theater distribution? Are alternatives available if commercial services are unable to reach the theater or, within the theater, unable to reach the customer destination?

- Is HN transportation facilities and/or equipment available and included in planning? What are the implications of the HN on MNFs sharing the same facilities or capabilities?

- Have arrangements been made to accommodate shipping, handling, and storage of hazardous materials and hazardous waste? Has coordination with appropriate HN and transit nation authorities been completed?

- Are preconfigured loads included in distribution system concepts? For what commodity items? What is the theater capability to transport preconfigured loads to the end-user? What is the theater capability to reconfigure loads?

- Are combatant commander procedures for tracking, control, and return of empty containers and 463L air pallets established?

- How is physical distribution of US mail integrated with other materiel? Has combatant commander policy and procedures for distribution of "any service member" letter and/or parcel mail been established? Can the flow of "any service member" mail be slowed or stopped if necessary?

e. **Cross-Leveling**

- What critical items are likely candidates for theater cross-leveling action?

- Are combatant commander mechanisms for effecting cross-leveling established? Have the protocols and procedures for combatant commander directive logistics authority been established for a given operation or commodity?

- Have adequate reimbursement procedures been established for operational cross-leveling?

- Have Service components established procedures and processes to cross-level service-owned materiel within the theater?

f. **Retrograde and Return**

- What is the concept for control and movement of retrograde materiel both intertheater and intratheater?

- Has the appropriate strategic (commercial or military) lift been allocated to support critical materiel returns?

g. **Disposal**

- Is DRMO support available in or near the theater?

- Is disposal coordination or assistance available as part of the DCST?

- Is combatant commander policy on disposal of scrap material established?

- Are there HN agreements for DRMS operations, including sales programs?

- What is the in-theater capability for demilitarization and disposal of munitions list items and/or commerce control list items?

- Is there a disposal-forward receiving activity? The Federal Railroad Administration (FRA) is normally associated with a contingency DCST. FRA provides compliant disposal support to the US forces for the removal of hazardous wastes and scrap disposal and facilitates the Service components retrograde of its usable excess property to an established DRMO. DLA-DRMS points of contact may be found at www.drms.dla.mil/DRMSI/contingencypocs.htm/.

- Are procedures for disposal of captured or confiscated weapons established?

- What is the alternative to in-theater DRMO operations?

- Are contract disposal operations required and established?

h. **Environmental**

- Has a lead agent for environmental matters been appointed?
- Have operation-specific hazardous material (HM) and hazardous waste (HW) handling and disposal standards been established?
- Have shipping impediments to "velocity" been identified and procedural solutions established?
- Have HN agreements to facilitate HM and HW disposal been established?
- Are suitable facilities, equipment, and materials available for HM/HW storage and transportation?
- Are adequate trained personnel assigned to perform environmental tasks?
- Are procedures in place to handle captured or confiscated HM and/or HW?

i. **Customs**

- Are agreements in place to ensure that HN customs issues do not hinder transportation of DOD materiel?
- Are arrangements with other nations within the operational area or theater for intratheater transit of materiel established?
- Are administrative procedures in place for HN customs clearance?
- Are third country vendors/US contractors included in customs planning?
- Is materiel clearly marked as property of the USG to be eligible for duty-free importation?

j. **Redeployment and Redistribution**

- What materiel will remain in theater and what materiel will be redeployed?
- What methods will be used for redeployment?
- What are the distribution support requirements for residual forces?
- What is the plan to dispose of excess or unusable equipment where transportation costs exceed reprocurement costs?
- What are the plans for munitions download and/or removal of hazardous material from redeploying vehicles and equipment?
- What arrangements have been made for agricultural inspections of large quantities of any commodity prior to shipment back to the United States?

5. Classes of Supply

a. **Class I**

- What is the distribution system concept for Class I materiel in theater, including offshore?
- Is subsistence vendor support already functioning in theater? Will it continue to be used during contingency operations? What expansion or modification of the vendor's distribution system will be necessary? Can the vendor's distribution network be put to use for other commodities?
- What Class I materiel is available from inventory sources in or close to the operational area?

- What are the implications on the HN, indigenous populations, or on MNFs using the same Class I facilities, inventory sources, or capabilities?
- Are combatant commander restrictions on subsistence materiel due to HN cultural constraints established?
- How will Service components requisition Class I materiel? Is Internet and/or STORES connectivity available?
- Are containerized operational ration programs planned? How far forward will they be distributed?
- What are the plans for redistribution, retrograde, and/or disposal of Class I materiel during redeployment?
- Is there a requirement to designate a lead Service for common Class I items to some or all the Service components of the joint force?
- What tactical level rations will be needed, by phase, to support the operation?

b. **Class II**

- What is the distribution system concept for Class II materiel in theater? What are the theater and/or Service component critical materiel inventory objectives?
- What Class II materiel is available from inventory sources in or close to the operational area?
- What are the implications on the HN, indigenous populations, or on MNFs using the same Class II facilities, inventory sources, or capabilities?
- How will Service components requisition Class II materiel?
- Is Internet-based requisitioning of Class II materiel available in theater?
- What CONUS or outside the theater surge and sustainment requirements are anticipated to support US forces, MNFs, or local populations?
- Is there a requirement to designate a CUL for the distribution of common Class II items to some or all the Service components of the joint force?

c. **Class III**

- What is the distribution system concept for Class III materiel in theater?
- Have Service component estimates of Class III bulk and packaged requirements and theater inventory levels been established?
- What are the Service component responsibilities for Class III distribution?
- What are the en route fuel support issues at ports or airfields supporting the TPFDD flow and follow-on sustainment?
- What Class III bulk fuel facilities (ports) are available for US use? What are their capabilities (depth, throughput, and storage, etc.)?
- Is there a requirement to designate a CUL for the distribution of common Class III items to some or all the Service components of the joint force?
- What tactical and/or operational level bulk fuel units and capabilities will be needed, by phase, to support the operation? How will they be tied into DESC operations?

- What Class III bulk or packaged materiel is available from inventory sources in or close to the operational area?

- What are the implications on the HN, indigenous populations, or on MNFs using the same Class III facilities, inventory sources, or capabilities?

- Do HNS plans exist for tanker truck, rail tanker car, pipeline, and barge support for Class III bulk fuel?

- Are JPO or DESC region contractual arrangements for HN source Class III materiel established?

- Are commercial POL storage and distribution facilities available, selected and adequate? Have these capabilities been integrated into the theater fuel distribution planning? How far forward can commercial sector distribution capabilities deliver fuel?

- Is force protection for POL storage and transportation established and adequate?

d. **Class IV**

- What requirements have the joint force engineer planners provided to distribution planners? When will requisitions for the materiel be submitted? Has an estimated requirement of Class IV materiel flow been included in JOPES TPFDDs? Is the arrival of the materiel consistent with the arrival of the engineer forces planned to use the materiel?

- What is the distribution system concept for Class IV materiel in theater? How much materiel can be throughput directly to the point of use?

- What tactical and/or operational level engineer units (i.e., Class IV users) and capabilities will be needed, by phase, to support the operation? How are these force distribution capabilities linked to vendor delivery capabilities? How far into theater can the commercial sector deliver Class IV materiel?

- Are Service component Class IV requirements established?

- What Class IV vendor programs are currently active in or near the theater? Can they continue to be used during contingency operations? What expansion or modification of the vendor distribution system will be necessary?

- What are the implications on the HN, indigenous populations, or on MNFs using the same Class IV facilities, inventory sources or capabilities?

- Is there a requirement to designate a CUL for the distribution of common Class IV items to some or all the Service components of the joint force?

- Is Internet-based requisitioning of Class IV materiel available in theater?

- What Class IV requirements can be acquired in theater?

- Are contingency stocks of Class IV materiel staged in theater or adjacent to the theater?

- What are the Class IV requirements and responsibilities of civil augmentation (i.e., LOGCAP, AFCAP, and CONCAP) contractors?

e. **Class V**

- What is the distribution system concept for Class V materiel in theater? Does it include the capability to distribute rapidly pre-configured ammunition packages and/or loads to operating forces?
- What are the implications on the HN, indigenous populations, or on MNFs using the same facilities or capabilities?
- Is there a requirement to designate a CUL for the distribution of common Class V items to some or all the Service components of the joint force?
- What tactical and/or operational level units and capabilities to distribute ammunition will be needed, by phase, to support the operation?
- Have critical munitions been identified and are sufficient levels of stocks of critical munitions available in theater, or can they be rapidly moved to theater to meet the JFC requirement?
- If there are shortfalls of critical munitions, can they be resolved by cross-leveling action between Service components, other combatant commanders, and MNF? Is compatibility of cross-leveling candidate items between Service components and delivery platforms known?
- Do Class V stocks need to be located to support operations? Is there a capability to meet surge requirements from strategic or operational level inventories?
- Are Class V inventory storage sites established that meet explosive safety and security considerations?
- Are Class V transportation arrangements established? Are return and retrograde capabilities planned to support the repair or redistribution of low-density, high-value munitions or components of munitions?
- Are Class V transportation bottlenecks identified, such as limited NEW capacity at essential en route airports or HN safety restrictions?
- Are theater organic forces or commercial sector equivalents equipped to handle and transport containerized and break-bulk munitions?

f. **Class VI**

- What is the distribution system concept for Class VI materiel in theater? What is the level of support desired, by phase of the operations? Are there any types of Class VI materiel that the combatant commander or Service component commanders do not want distributed to their forces?
- Are existing exchange services in theater? Will they continue to operate during contingency operations? Can they surge to meet planned requirements?
- Are deployable exchanges included in plans? When will exchanges be phased into the theater and who will determine the source, type, and location? Will multiple Service deployable exchanges be requested (AAFES, MCX, and/or NEXCOM)?
- What transportation priority will be established for Class VI materiel?
- Are combatant commander restrictions (based on HN considerations) on the importation of exchange merchandise such as certain types of magazines, books, or food established? Have these

restrictions been communicated to the appropriate Service exchange commands?

- What are the implications on the HN, indigenous populations, or on MNFs using the same facilities, inventory sources or capabilities?
- Is internet-based requisitioning of Class VI materiel available?
- Is there a requirement to designate a CUL for the distribution of common Class VI items to some or all the Service components of the joint force?
- Are Class VI merchandise restrictions and/or rationing necessary due to HN black market concerns?

g. **Class VII**

- What is the distribution system concept for Class VII materiel in theater?
- Have joint force planners or Service components programmed in replacement systems for battle or non-battle losses? Have these estimates been coordinated with the Military Services? Is there a distribution plan to position replacement weapons systems or Class VII components of weapons systems in the theater or move them rapidly from outside the theater?
- Are there Service component or joint capabilities available to support dedicated weapons system replacement operations?
- What retrograde and/or return distribution capacity is available to support intratheater or intertheater movement of reparable Class VII items to repair facilities?

h. **Class VIII**

- What is the distribution system concept for Class VIII materiel in theater?
- Have Class VIII sustainability and/or resupply requirements been established?
- Is there a requirement to designate a CUL for the distribution of common Class VIII items to some or all the Service components of the joint force? Is a SIMLM established for Class VIII materiel?
- What Class VIII vendor programs are currently active in theater? Can they continue to be used during contingency operations? What expansion or modification of the vendor distribution system will be necessary?
- What are the implications on the HN, indigenous populations, or on MNFs using the same Class VIII facilities, inventory sources, or capabilities?
- How will Service components requisition Class VIII materiel?
- Is Internet-based requisitioning of Class VIII materiel available in theater?
- How will medical air express deliveries be integrated with theater distribution?
- Have arrangements been made to accommodate shipping, handling, and storage of hazardous waste? Has coordination with appropriate US HN, transit nation, and other regulatory authorities been completed?

i. **Class IX**

- What is the distribution system concept for Class IX materiel in theater?

- Are product support contractors included in Service component Class IX plans? How will vendor Class IX distribution be integrated into the theater distribution system?

- What are the implications on the HN, indigenous populations, or on MNFs using the same Class IX facilities, inventory sources, or capabilities?

- Is there a requirement to designate a CUL for the distribution of common Class IX items to some or all the Service components of the joint force?

- How will Service components requisition Class IX materiel?

- Is Internet-based requisitioning of Class IX materiel available in theater?

j. **Class X**

- What is the distribution system concept for Class X materiel in theater?

- Are there existing Class X physical distribution or inventory resources in or close to the theater? How will this be integrated with the overall theater distribution system?

- How will NGO distribution operations be integrated with military distribution operations? How will conflicting requirements for distribution resources be resolved?

- Will other organizations and personnel be needed to supplement assigned and attached forces due to the unique nature of humanitarian assistance or other operations?

- Have guidelines on acceptable and prohibited donated materiel been developed and communicated to the CONUS donated materiel coordinator.

- How will donated materiel shipments be integrated into existing air and/or surface lift priorities and capacity?

- How will donated materiel be received, controlled, and distributed in theater?

- How will the flow of donated materiel be reduced and/or ceased at the conclusion of operations?

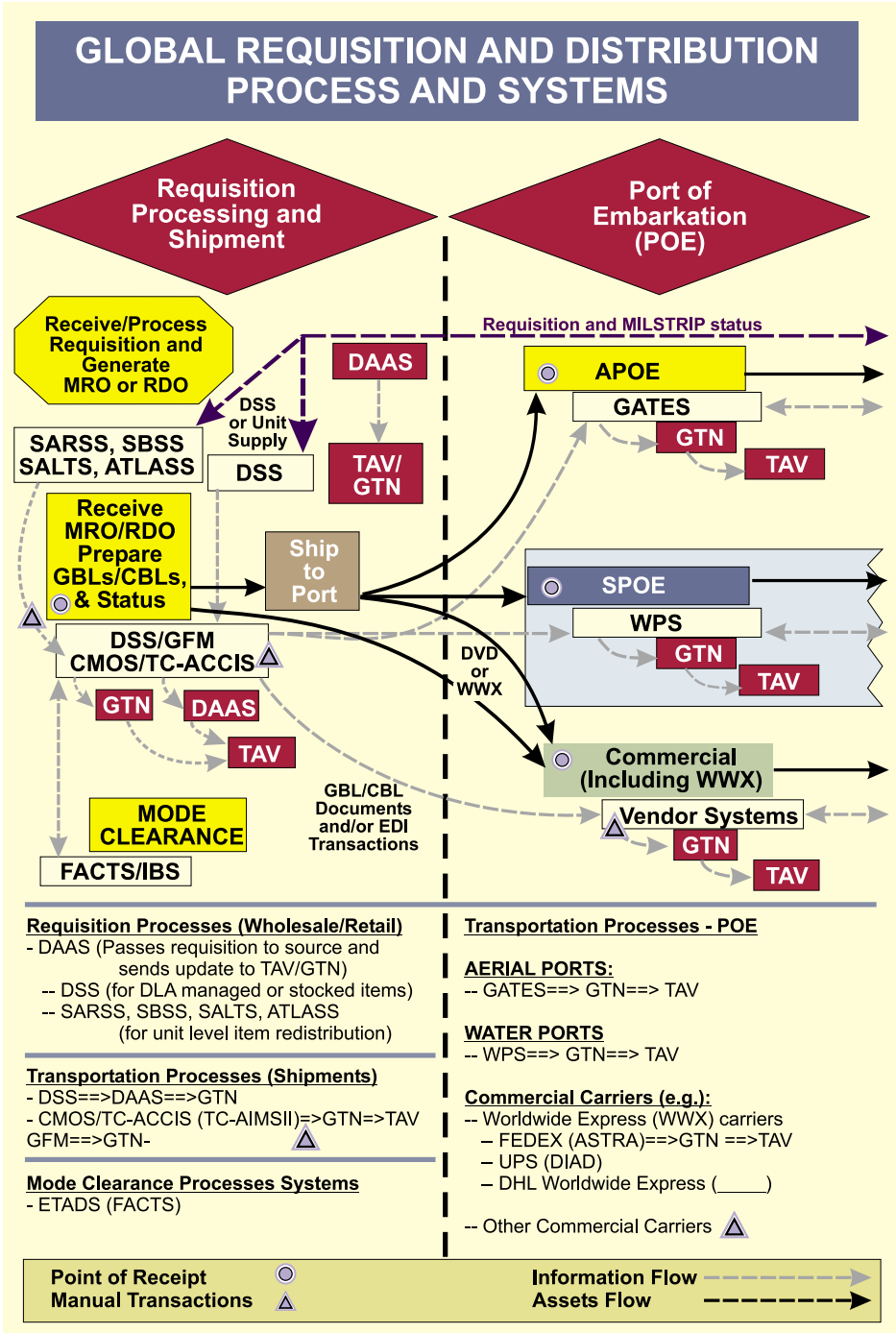

Figure B-1. Global Requisition and Distribution Process and Systems

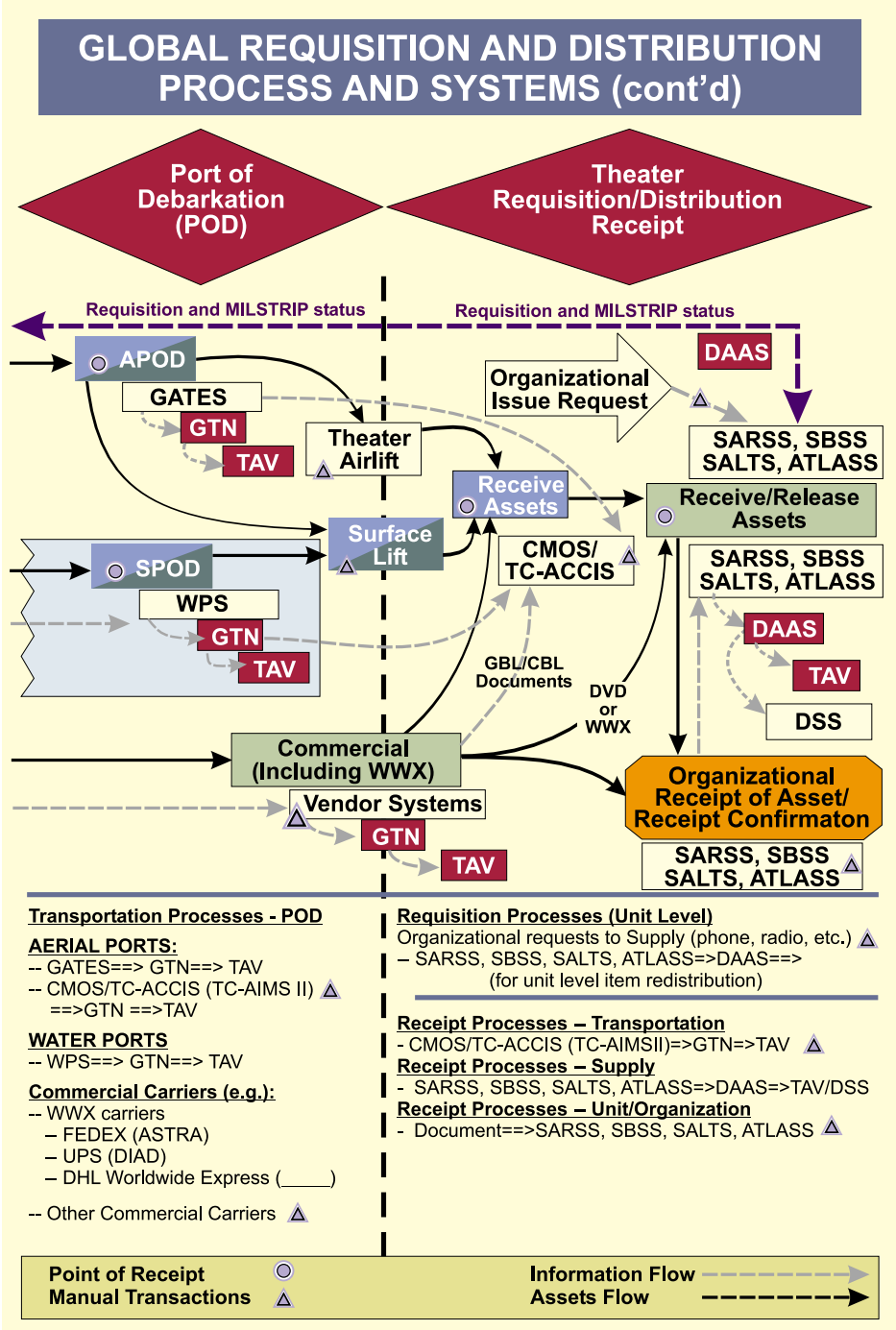

Figure B-1. Global Requisition and Distribution Process and Systems (cont'd)

GLOBAL REQUISITION AND DISTRIBUTION PROCESS AND SYSTEMS (cont'd) (ACRONYM LIST)

APOE	aerial port of embarkation
ASTRA	Automatic Satellite Tracking Research Antenna
ATLASS	Asset Tracking and Logistics Automated Support System
CBL	commercial bill of lading
CMOS	cargo movement operations system
DAAS	Defense Automatic Addressing System
DIAD	Delivery Information Acquisition Device
DLA	Defense Logistics Agency
DSS	Distribution Standard System
DVD	direct vendor delivery
EDI	electronic data interchange
ETADS	Enhanced Transportation Automated Data System
FEDEX	Federal Express
GATES	Global Air Transportation Execution System
GBL	government bill of lading
GFM	global freight management
GTN	Global Transportation Network
IBS	integrated booking system
MRO	materiel release order
POE	port of embarkation
RDO	redistribution order
SALTS	Streamlined Automated Logistics Transfer System
SARSS	Standard Army Retail Supply System
SBSS	standard base supply system
SPOE	seaport of embarkation
TAV	total asset visibility
TC-ACCIS	Transportation Coordinator's-Automated Command and Control Information System
TC-AIMS II	Transportation Coordinator's-Automated Information for Movements System II
UPS	United Parcel Service
WPS	Worldwide Port System
WWX	worldwide express

Figure B-1. Global Requisition and Distribution Process and Systems (cont'd) (Acronym List)

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APPENDIX C
REFERENCES

The development of JP 4-09 is based upon the following primary references.

1. Title 10, United States Code, "Armed Forces," and as specifically amended by:

   a. Department of Defense Reorganization Act of 1986.

   b. Cohen-Nunn Amendment to the Department of Defense Reorganization Act of 1986, as attached to the Defense Authorization Act, FY 1987.

2. Title 49, United States Code, "Transportation."

3. Basel Convention on the Control of Transboundary Movements of Hazardous Waste.

4. DLAI 4140.55/SECNAV NIST 4355.18A/AFJMAN 23-215/AR 735-11-2, *Report of Supply Discrepancy.*

5. DOD Directive 1315.6, *Responsibilities of Military Troop Construction Support of the Department of the Air Force Overseas.*

6. DOD Directive 4000.25-M, Volumes 1-4 and 7, *Defense Logistics Management System.*

7. DOD Directive 4000.25-1-M, *Military Standard Requisitioning and Issue Procedures.*

8. DOD Directive 4000.25-2-M. *Military Standard Transaction Reporting and Accounting Procedures.*

9. DOD Directive 4000.25-6-M, *Department of Defense Activity Address Directory.*

10. DOD Directive 4160.21-M, *Defense Material Disposition Manual.*

11. DOD Directive 4410.6, *Uniform Materiel Movement and Issue Priority System.*

12. DOD Directive 4500.9R, *Defense Transportation Regulation.*

13. DOD Directive 5100.1, *Functions of the Department of Defense and its Major Components.*

14. DOD Publication 4715.5-G, *Overseas Environmental Baseline Guidance Document.*

15. DOD 4715.5-G, *Overseas Environmental Baseline Guidance Document.*

16. DODI 4715.6, *Environmental Compliance.*

17. CJCSI 3110.01A, *Joint Strategic Capabilities Plan (JSCP).*

18. CJCSI 3110.11B, *Mobility Supplement to the Joint Strategic Capabilities Plan*.

19. CJCSI 4110.01A, *Uniform Materiel Movement and Issue Priority System – Force Activity Designators.*

20. CJCSM 3122.01, *Joint Operation Planning and Execution System Vol I: (Planning Policies and Procedures).*

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22. CJCSM 3122.03A, *Joint Operation Planning and Execution System Vol II: (Planning Formats and Guidance).*

23. JP 1, *Joint Warfare of the Armed Forces of the United States*.

24. JP 0-2, *Unified Action Armed Forces (UNAAF)*.

25. JP 1-0, *Doctrine for Personnel Support to Joint Operations*.

26. JP 1-01, *Joint Doctrine Development System*.

27. JP 1-02, *Department of Defense Dictionary of Military and Associated Terms*.

28. JP 2-03, *Joint Tactics, Techniques, and Procedures for Geospatial Information and Services Support to Joint Operations*.

29. JP 3-0, *Doctrine for Joint Operations*.

30. JP 3-05, *Doctrine for Joint Special Operations*.

31. JP 3-07, *Joint Doctrine for Military Operations Other Than War*.

32. JP 3-07.6, *Joint Tactics, Techniques, and Procedures for Foreign Humanitarian Assistance*.

33. JP 3-07.7, *Joint Tactics, Techniques, and Procedures for Domestic Support Operations.*

34. JP 3-08, *Interagency Coordination During Joint Operations, Volumes I & II*.

35. JP 3-11, *Joint Doctrine for Operations in Nuclear, Biological, and Chemical (NBC) Environments*.

36. JP 3-12, *Doctrine for Joint Nuclear Operations.*

37. JP 3-13, *Joint Doctrine for Information Operations*.

38. JP 3-16, *Joint Doctrine for Multinational Operations*.

39. JP 3-17, *Joint Doctrine and Joint Tactics, Techniques, and Procedures for Air Mobility Operations*.

40. JP 3-35, *Joint Deployment and Redeployment Operations*.

41. JP 3-57, *Joint Doctrine for Civil-Military Operations.*

42. JP 4-0, *Doctrine for Logistic Support of Joint Operations*.

43. JP 4-01, *Joint Doctrine for the Defense Transportation System*.

44. JP 4-01.2, *Joint Tactics, Techniques, and Procedures for Sealift Support to Joint Operations*.

45. JP 4-01.3, *Joint Tactics, Techniques, and Procedures for Movement Control*.

46. JP 4-01.4, *Joint Tactics, Techniques, and Procedures for Joint Theater Distribution*.

47. JP 4-01.5, *Joint Tactics, Techniques, and Procedures for Transportation Terminal Operations*.

48. JP 4-01.6, *Joint Tactics, Techniques, and Procedures for Joint Logistics Over-the-Shore (JLOTS).*

49. JP 4-01.7, *Joint Tactics, Techniques, and Procedures for Use of Intermodal Containers in Joint Operations*.

50. JP 4-01.8, *Joint Tactics, Techniques, and Procedures for Joint Reception, Staging, Onward Movement, and Integration*.

51. JP 4-02, *Doctrine for Health Service Support in Joint Operations*.

52. JP 4-02.1, *Joint Tactics, Techniques, and Procedures for Health Service Logistics Support in Joint Operations*.

53. JP 4-03, *Joint Bulk Petroleum Doctrine*.

54. JP 4-04, *Joint Doctrine for Civil Engineering Support*.

55. JP 4-05, *Joint Doctrine for Mobilization Planning*.

56. JP 4-05.1, *Joint Tactics, Techniques, and Procedures for Manpower Mobilization and Demobilization Operations: Reserve Component (RC) Callup*.

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58. JP 4-08, *Joint Doctrine for Logistic Support of Multinational Operations.*

59. JP 5-0, *Doctrine for Planning Joint Operations*.

60. JP 5-00.2, *Joint Task Force Planning Guidance and Procedures*.

61. JP 6-0, *Doctrine for Command, Control, Communications, and Computer (C4) Systems Support to Joint Operations*.

62. JP 6-0.2, *Joint Doctrine for Employment of Operational/Tactical Command, Control, Communications, and Computer Systems*.

APPENDIX D
ADMINISTRATIVE INSTRUCTIONS

1. User Comments

Users in the field are highly encouraged to submit comments on this publication to: Commander, United States Joint Forces Command, Joint Warfighting Center Code JW100, 116 Lake View Parkway, Suffolk, VA 23435-2697. These comments should address content (accuracy, usefulness, consistency, and organization), writing, and appearance.

2. Authorship

The lead agent and Joint Staff doctrine sponsor for this publication is the Director for Logistics (J-4).

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USCINCJFCOM NORFOLK VA//JW100//

Routine changes should be submitted to the Director for Operational Plans and Joint Force Development (J-7), JDETD, 7000 Joint Staff Pentagon, Washington, DC 20318-7000, with info copies to the USJFCOM JWFC.

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GLOSSARY

PART I — ABBREVIATIONS AND ACRONYMS

AAFS	amphibious assault fuel system
AAFES	Army and Air Force Exchange Service
ACSA	acquisition cross-Service agreement
AECA	Arms Export Control Act
AFCAP	Air Force Contract Augmentation Program
AFCESA	Air Force Civil Engineer Support Agency
AIS	automated information system
AIT	automated identification technology
AMC	Air Mobility Command
AMS	Asset Management System
AOR	area of responsibility
APF	afloat pre-positioning force
APOD	aerial port of debarkation
APOE	aerial port of embarkation
ASBPO	Armed Services Blood Program Office
BOA	blanket ordering arrangement
BTC	blood transshipment center
C2	command and control
C2IPS	Command and Control Information Processing System
C4I	command, control, communications, computers, and intelligence
CAC	common access card
CAMPS	consolidated air mobility planning system
CAO	chief administrative officer
CAP	crisis action planning
CCP	consolidation and containerization point
CD-ROM	compact disc read-only memory
CESP	civil engineering support plan
CJCS	Chairman of the Joint Chiefs of Staff
CJCSI	Chairman of the Joint Chiefs of Staff Instruction
CJCSM	Chairman of the Joint Chiefs of Staff Manual
CJTF	commander, joint task force
CLF	combat logistics force
CLS	contractor logistic support
CMOC	civil-military operations center
COA	course of action
COCOM	combatant command (command authority)
COMALOC	commercial air line of communications
CONCAP	construction capabilities contract program
CONUS	continental United States
CORE	contingency response program
CRAF	civil reserve air fleet

CSR	controlled supply rate
CUL	common-user logistics
CULT	common-user land transportation
DAAS	defense automatic addressing system
DAO	Defense Attaché Office
DCMA	Defense Contract Management Agency
DCST	Defense Logistics Agency (DLA) Contingency Support Team
DDC	defense distribution center
DDMA	Defense Distribution Mapping Activity
DESC	Defense Energy Support Center
DHHS	Department of Health and Human Services
DISA	Defense Information Systems Agency
DISN	Defense Information Systems Network
DLA	Defense Logistics Agency
DLSS	Defense Logistics Standard Systems
DMS	Defense Message System
DOD	Department of Defense
DODAAD	Department of Defense Activity Address Directory
DOMS	director of military support
DOS	Department of State
DOT	Department of Transportation
DRMO	Defense Reutilization and Marketing Office
DRMS	Defense Reutilization and Marketing Service
DSCA	Defense Security Cooperation Agency
DSCP	Defense Supply Center Philadelphia
DSCR	Defense Supply Center Richmond
DSS	Distribution Standard System
DTRACS	Defense Transportation Reporting and Control System
DTS	Defense Transportation System
DTTS	Defense Transportation Tracking System
DVD	direct vendor delivery
ELIST	enhanced logistics intratheater support tool
EMALL	electronic mall
ESF	emergency support function
FAA	Foreign Assistance Act
FEMA	Federal Emergency Management Agency
FEPP	foreign excess personal property
FHA	foreign humanitarian assistance
FID	foreign internal defense
FLSG	force logistic support group
FMS	foreign military sales
FRA	Federal Railroad Administration
FRP	Federal response plan (USG)
FSS	fast sealift ship

GATES	Global Air Transportation Execution System
GCCS	Global Command and Control System
GCSS	Global Combat Support System
GDSS	Global Decision Support System
GFM	global freight management
GI&S	geospatial information and services
GIG	Global Information Grid
GOCO	government-owned, contractor-operated
GOGO	government-owned, government-operated
GPC	government purchase card
GSA	General Services Administration
GTN	Global Transportation Network
HM	hazardous material
HMIS	Hazardous Material Information System
HN	host nation
HNS	host-nation support
HQ	headquarters
HSS	health service support
HW	hazardous waste
IA	implementing arrangement
IBS	Integrated Booking System
IC3	Integrated Command, Control, and Communications
ICIS	integrated consumable item support
ICP	inventory control point
IO	international organization
IPDS	inland petroleum distribution system
ISO	International Organization for Standardization
ITV	in-transit visibility
J-4	logistics directorate of a joint staff
JBPO	joint blood program office
JDPO	joint deployment process owner
JFAST	joint flow and analysis system for transportation
JFC	joint force commander
JFRG II	joint force requirements generator II
JIMPP	joint industrial mobilization planning process
JLOTS	joint logistics over-the-shore
JMC	joint movement center
JMPA	joint military postal activity
JMPAB	Joint Materiel Priorities and Allocation Board
JMRR	Joint Monthly Readiness Review
JMTCA	joint munitions transportation coordinating activity
JOA	joint operations area
JOPES	Joint Operation Planning and Execution System
JP	joint publication

JPO	Joint Petroleum Office
JRSOI	joint reception, staging, onward movement, and integration
JSCP	Joint Strategic Capabilities Plan
JSPS	Joint Strategic Planning System
JTAV	joint total asset visibility
JTF	joint task force
JTLM	joint theater logistics management
JV	Joint Vision
LIPS	Logistics Information Processing System
LMARS	Logistics Metrics Analysis Reporting System
LN	lead nation
LOA	letter of offer and acceptance
LOC	line of communications
LOGCAP	logistics civil augmentation program
LSA	logistic support analysis
MACA	military assistance to civil authorities
MARAD	Maritime Administration
MCX	Marine Corps Exchange
MILALOC	military air line of communications
MILSTRAP	military standard transaction reporting and accounting procedure
MILSTRIP	military standard requisitioning and issue procedure
MNF	multinational force
MNFC	multinational force commander
MOOTW	military operations other than war
MPS	maritime pre-positioning ship
MPSA	Military Postal Service Agency
MSC	Military Sealift Command
MSCA	military support to civil authorities
MSO	map support office
MTF	medical treatment facility
MTMC	Military Traffic Management Command
NATO	North Atlantic Treaty Organization
NCA	National Command Authorities
NEW	net explosive weight
NEXCOM	Navy Exchange Command
NGO	nongovernmental organization
NIMA	National Imagery and Mapping Agency
NMS	National Military Strategy
NOAA	National Oceanographic and Atmospheric Administration
NUFEA	Navy unique fleet essential aircraft
OCONUS	outside the continental United States
OMC	optical memory card
OPCON	operational control

OPDS	offshore petroleum discharge system
OPLAN	operation plan
OPORD	operation order
OSA	operational support airlift
OSC	operational support command
PDS	primary distribution site
POD	port of debarkation
POE	port of embarkation
POL	petroleum, oils, and lubricants
PV	prime vendor
RDD	required delivery date
RFID	radio frequency identification
RO/RO	roll on/roll off
RRF	Ready Reserve Force
RSD	reporting of supply discrepancy
RSN	role specialist nation
SA	security assistance
SAO	security assistance organization
SDP	strategic distribution platform
SIMLM	single integrated medical logistics manager
SM	Service manager
SMCA	single manager for conventional ammunition
SOF	special operations forces
SOFA	status-of-forces agreement
SPM	single port manager
SPOD	seaport of debarkation
SPOE	seaport of embarkation
STORES	Subsistence Total Order and Receipt Electronic System
TAV	total asset visibility
TC-AIMS II	Transportation Coordinator's Automated Information for Movement System II
TCC	transportation component command
TDR	transportation discrepancy report
TPFDD	time-phased force and deployment data
UMMIPS	uniform materiel movement and issue priority system
UN	United Nations
USC	universal service contract
USCG	United States Coast Guard
USCINCTRANS	Commander in Chief, United States Transportation Command
USDA	United States Department of Agriculture
USG	United States Government
USJFCOM	United States Joint Forces Command
USPS	United States Postal Service

USSOCOM	United States Special Operations Command
USSPACECOM	United States Space Command
USTRANSCOM	United States Transportation Command
VISA	Voluntary Intermodal Sealift Agreement
VMI	vendor managed inventory
VPV	virtual prime vendor
WASP	War Air Service Program
WPS	Worldwide Port System
WWX	worldwide express

acquisition and cross-servicing agreement. Agreements negotiated on a bilateral basis with US allies or coalition partners that allow US forces to exchange most common types of support, including food, fuel, transportation, ammunition, and equipment. Authority to negotiate these agreements is usually delegated to the combatant commander by the Secretary of Defense. Authority to execute these agreements lies with the Secretary of Defense, and may or may not be delegated. Governed by legal guidelines, these agreements are used for contingencies, peacekeeping operations, unforeseen emergencies, or exercises to correct logistic deficiencies that cannot be adequately corrected by national means. The support received or given is reimbursed under the conditions of the acquisition and cross-servicing agreement. Also called ACSA. (JP 1-02)

aerial port. An airfield that has been designated for the sustained air movement of personnel and materiel, and to serve as an authorized port for entrance into or departure from the country where located. (JP 1-02)

afloat pre-positioning force. Shipping maintained in full operational status to afloat pre-position military equipment and supplies in support of combatant commanders' operation plans. The afloat pre-positioning force consists of the three maritime prepositioning ships squadrons and the afloat pre-positioning ships. Also called APF. (JP 1-02)

afloat pre-positioning ships. Forward deployed merchant ships loaded with tactical equipment and supplies to support the initial deployment of military forces. Also called APS. (JP 1-02)

Air Mobility Command. The Air Force component command of the US Transportation Command. Also called AMC. (JP 1-02)

ammunition. See munition.

ammunition controlled supply rate. In Army usage, the amount of ammunition estimated to be available to sustain operations of a designated force for a specified time if expenditures are controlled at that rate. It is expressed in terms of rounds per weapon per day for ammunition items fired by weapons, and in terms of units of measure per organization per day for bulk allotment ammunition items. Tactical commanders use this rate to control expenditures of ammunition during tactical operations at planned intervals. It is issued through command channels at each level. It is determined based on consideration of the required supply rates submitted by subordinate commanders and ammunition assets available. (JP 1-02)

any Service member mail. Mail sent by the general public to an unspecified Service member deployed on a contingency operation, as an expression of patriotic support. (JP 1-02)

bulk petroleum product. A liquid petroleum product transported by various means and stored in tanks or containers having an individual fill capacity greater than 250 liters. (JP 1-02)

campaign plan. A plan for a series of related military operations aimed at accomplishing a strategic or operational objective within a given time and space. (JP 1-02)

civil augmentation program. Standing, long-term contacts designed to augment Service logistic capabilities with contract support in both preplanned and short notice contingencies. Examples include US Army Logistics Civilian Augmentation Program, US Air Force Contract Augmentation Program, and US Navy Construction Capabilities Contract. (JP 1-02)

civil-military operations. The activities of a commander that establish, maintain, influence, or exploit relations between military forces, governmental and nongovernmental civilian organizations and authorities, and the civilian populace in a friendly, neutral, or hostile operational area in order to facilitate military operations, to consolidate and achieve operational US objectives. Civil-military operations may include performance by military forces of activities and functions normally the responsibility of the local, regional, or national government. These activities may occur prior to, during, or subsequent to other military actions. They may also occur, if directed, in the absence of other military operations. Civil-military operations may be performed by designated civil affairs, by other military forces, or by a combination of civil affairs and other forces. Also called CMO. (JP 1-02)

classes of supply. There are ten categories into which supplies are grouped in order to facilitate supply management and planning. I. Rations and gratuitous issue of health, morale, and welfare items. II. Clothing, individual equipment, tentage, tool sets, and administrative and housekeeping supplies and equipment. III. Petroleum, oil, and lubricants. IV. Construction materiels. V. Ammunition. VI. Personal demand items. VII. Major end items, including tanks, helicopters, and radios. VIII. Medical. IX. Repair parts and components for equipment maintenance. X. Nonstandard items to support nonmilitary programs such as agriculture and economic development. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

coalition. An ad hoc arrangement between two or more nations for common action. (JP 1-02)

combatant command (command authority). Nontransferable command authority established by title 10 (“Armed Forces”), United States Code, section 164, exercised only by commanders of unified or specified combatant commands unless otherwise directed by the President or the Secretary of Defense. Combatant command (command authority) cannot be delegated and is the authority of a combatant commander to perform those functions of command over assigned forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations, joint training, and logistics necessary to accomplish the missions assigned to the command. Combatant command (command authority) should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders. Combatant command (command authority) provides full authority to organize and employ commands and forces, as the combatant commander considers necessary to accomplish assigned missions. Operational control is inherent in combatant command (command authority). Also called COCOM. (JP 1-02)

common-user logistics. Materiel or service support shared with or provided by two or more Services, Department of Defense (DOD) agencies, or multinational partners

to another Service, DOD agency, non-DOD agency, and/or multinational partner in an operation. Common-user logistics is usually restricted to a particular type of supply and/or service and may be further restricted to specific unit(s) or types of units, specific times, missions, and/or geographic areas. Also called CUL. (JP 1-02)

containerization. The use of containers to unitize cargo for transportation, supply and storage. Containerization incorporates supply, transportation, packaging, storage, and security together with visibility of container and its contents into a distribution system from source to user. (JP 1-02)

cross-leveling. The authority and ability to shift materiel inventory from one owner to meet the requirement of another. At the theater strategic level and operational level, it is the process of diverting en route or in-theater materiel from one military element to meet the higher priority of another within the combatant commander's directive authority for logistics. Cross-leveling plans must include specific reimbursement procedures. (JP 1-02)

cross-servicing. A subset of common-user logistics in which a function is performed by one Military Service in support of another Military Service and for which reimbursement is required from the Service receiving support. (JP 1-02)

customer wait time. The total elapsed time between issuance of a customer order and satisfaction of that order. Also called CWT. (Upon approval of this publication, this term and its definition will be included in JP 1-02.)

Department of Defense single manager. A Military Department or Agency, designated by the Secretary of Defense as a Department of Defense (DOD) executive agent, that is responsible for management of specified logistic commodities or common service activities on a DOD-wide basis. (JP 1-02)

deployment. 1. In naval usage, the change from a cruising approach or contact disposition to a disposition for battle. 2. The movement of forces within operational areas. 3. The positioning of forces into a formation for battle. 4. The relocation of forces and materiel to desired operational areas. Deployment encompasses all activities from origin or home station through destination, specifically including intra-continental United States, intertheater, and intratheater movement legs, staging, and holding areas. (JP 1-02)

direct vendor delivery. A materiel acquisition and distribution method that requires vendor delivery directly to the customer. Also called DVD. (Upon approval of this publication, this term and its definition will be included in JP 1-02.)

distribution. 1. The arrangement of troops for any purpose, such as a battle, march, or maneuver. 2. A planned pattern of projectiles about a point. 3. A planned spread of fire to cover a desired frontage or depth. 4. An official delivery of anything, such as orders or supplies. 5. The operational process of synchronizing all elements of the logistic system to deliver the "right things" to the "right place" at the "right time" to support the geographic combatant commander. 6. The process of assigning military personnel to activities, units, or billets. (JP 1-02)

distribution system. That complex of facilities, installations, methods, and procedures designed to receive, store, maintain, distribute, and control the flow of military materiel between the point of receipt into the military system and the point of issue to using activities and units. (JP 1-02)

dominant user. The Service or multinational partner who is the principal consumer of a particular common-user logistic supply or service within a joint or multinational operation. The dominant user will normally act as the lead Service to provide this particular common-user logistic supply or service to other Service components, multinational partners, other governmental agencies, or nongovernmental agencies as directed by the combatant commander. (JP 1-02)

dominant user concept. The concept that the Service that is the principal consumer will have the responsibility for performance of a support workload for all using Services. (JP 1-02)

employment. The strategic, operational, or tactical use of forces. (JP 1-02)

force. 1. An aggregation of military personnel, weapon systems, vehicles and necessary support, or combination thereof. 2. A major subdivision of a fleet. (JP 1-02)

force activity designators. Numbers used in conjunction with urgency of need designators to establish a matrix of priorities used for supply requisitions. Defines the relative importance of the unit to accomplish the objectives of the Department of Defense. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

force protection. Actions taken to prevent or mitigate hostile actions against Department of Defense personnel (to include family members), resources, facilities, and critical information. These actions conserve the force's fighting potential so it can be applied at the decisive time and place and incorporates the coordinated and synchronized offensive and defensive measures to enable the effective employment of the joint force while degrading opportunities for the enemy. Force protection does not include actions to defeat the enemy or protect against accidents, weather, or disease. (JP 1-02)

foreign humanitarian assistance. Programs conducted to relieve or reduce the results of natural or manmade disasters or other endemic conditions such as human pain, disease, hunger, or privation that might present a serious threat to life or that can result in great damage to or loss of property. Foreign humanitarian assistance provided by US forces is limited in scope and duration. The foreign assistance provided designed to supplement or complement the efforts of the host nation civil authorities or agencies that may have the primary responsibility for providing foreign humanitarian assistance. Foreign humanitarian assistance operations are those conducted outside the United States, its territories, and possessions. Also called FHA. (JP 1-02)

foreign internal defense. Participation by civilian and military agencies of a government in any of the action programs taken by another government to free and protect its society from subversion, lawlessness, and insurgency. Also called FID. (JP 1-02)

global distribution. The process that synchronizes and integrates fulfillment of joint force requirements with employment of the joint force. It provides national resources (personnel and materiel) to support execution of joint operations. The ultimate objective of this process is the effective and efficient accomplishment of the joint force mission. (This term and its definition are approved for inclusion in the next edition of JP 1-02.)

global distribution of materiel. The process of providing materiel from the source of

supply to its point of consumption or use on a worldwide basis. (This term and its definition are approved for inclusion in the next edition of JP 1-02.)

Global Transportation Network. The designated Department of Defense (DOD) in-transit visibility system, providing customers with the ability to track the identity, status, and location of DOD units and non-unit cargo, passengers, patients, forces, and military and commercial airlift, sealift, and surface assets from origin to destination across the range of military operations. The Global Transportation Network (GTN) collects, integrates, and distributes transportation information to combatant commanders, Services, and other DOD customers. GTN provides the US Transportation Command with the ability to perform command and control operations, planning and analysis, and business operations in tailoring customer requirements throughout the requirements process. Also called GTN. (JP 1-02)

host-nation support. Civil and/or military assistance rendered by a nation to foreign forces within its territory during peacetime, crises or emergencies, or war based on agreements mutually concluded between nations. Also called HNS. (JP 1-02)

intermodal. Type of international freight system that permits transshipping among sea, highway, rail, and air modes of transportation through use of American National Standards Institute and International Organization for Standardization containers, line-haul assets, and handling equipment. (JP 1-02)

in-transit visibility. The ability to track the identity, status, and location of Department of Defense units, and non-unit cargo (excluding bulk petroleum, oils, and lubricants) and passengers; medical patients; and personal property from origin to consignee or destination across the range of military operations. Also called ITV. See also global transportation network. (JP 1-02)

intratheater airlift. See theater airlift.

joint force commander. A general term applied to a combatant commander, subunified commander, or joint task force commander authorized to exercise combatant command (command authority) or operational control over a joint force. Also called JFC. (JP 1-02)

Joint Materiel Priorities and Allocation Board. The agency charged with performing duties for the Chairman of the Joint Chiefs of Staff in matters that establish materiel priorities or allocate resources. (This term and its definition are approved for inclusion in the next edition of JP 1-02.)

joint tactics, techniques, and procedures. The actions and methods that implement joint doctrine and describe how forces will be employed in joint operations. They are authoritative; as such, joint tactics, techniques, and procedures will be followed except when, in the judgment of the commander, exceptional circumstances dictate otherwise. They will be promulgated by the Chairman of the Joint Chiefs of Staff, in coordination with the combatant commands and Services. Also called JTTP. (JP 1-02)

joint task force. A joint force that is constituted and so designated by the Secretary of Defense, a combatant commander, a subunified commander, or an existing joint task force commander. Also called JTF. (JP 1-02)

Lead Service or agency for common-user logistics. A Service component or Department of Defense agency that is responsible for execution of common-user item or service support in a specific combatant command or multinational

operation as defined in the combatant or subordinate joint force commander's operation plan, operation order, and/or directives. (JP 1-02)

line of communications. A route, either land, water, and/or air, which connects an operating military force with a base of operations and that supplies and military forces move. Also called LOC. (JP 1-02)

logistics. The science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense, those aspects of military operations which deal with: a. design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposition of materiel; b. movement, evacuation, and hospitalization of personnel; c. acquisition or construction, maintenance, operation, and disposition of facilities; and d. acquisition or furnishing of services. (JP 1-02)

materiel. All items (including ships, tanks, self-propelled weapons, aircraft, etc., and related spares, repair parts, and support equipment, but excluding real property, installations, and utilities) necessary to equip, operate, maintain, and support military activities without distinction as to its application for administrative or combat purposes. (JP 1-02)

military capability. The ability to achieve a specified wartime objective (win a war or battle, destroy a target set). It includes four major components: force structure, modernization, readiness, and sustainability, a. force structure — Numbers, size, and composition of units that comprises US defense forces; e.g., division, ships, air wings. b. modernization — Technical sophistication of forces, units, weapon systems, and equipment. c. unit readiness — The ability to provide capabilities required by the combatant commanders to execute their assigned missions. This is derived from the ability of each unit to deliver the outputs for which it as designed. d. sustainability — The ability to maintain the necessary level and duration of operational activity to achieve military objectives. Sustainability is a function of providing for and maintaining those levels of ready forces, materiel, and consumables necessary to support military effort. (JP 1-02)

military operations other than war. Operations that encompass the use of military capabilities across the range of military operations short of war. These military actions can be applied to complement any combination of the other instruments of national power and occur before, during, and after war. Also called MOOTW. (JP 1-02)

mobilization. 1. The act of assembling and organizing national resources to support national objectives in time of war or other emergencies. See also industrial mobilization. 2. The process by which the Armed Forces or part of them are brought to a state of readiness for war or other national emergency. This includes activating all or part of the Reserve Components as well as assembling and organizing personnel, supplies, and materiel. Mobilization of the Armed Forces includes but is not limited to the following categories: a. selective mobilization — Expansion of the active Armed Forces resulting from action by Congress and/or the President to mobilize Reserve Component units, individual ready reservists, and the resources needed for their support to meet the requirements of a domestic emergency that is not the result of an enemy attack. b. partial mobilization — Expansion of the active Armed Forces resulting from action by Congress (up to full mobilization) or by the President (not

more than 1,000,000 for not more than 24 consecutive months) to mobilize Ready Reserve Component units, individual reservists, and the resources needed for their support to meet the requirements of a war or other national emergency involving an external threat to the national security. c. full mobilization — Expansion of the active Armed Forces resulting from action by Congress and the President to mobilize all Reserve Component units in the existing approved force structure, all individual reservists, retired military personnel, and the resources needed for their support to meet the requirements of a war or other national emergency involving an external threat to the national security. Reserve personnel can be placed on active duty for the duration of the emergency plus six months. d. total mobilization — Expansion of the active Armed Forces resulting from action by Congress and the President to organize and/or generate additional units or personnel, beyond the existing force structure, and the resources needed for their support, to meet the total requirements of a war or other national emergency involving an external threat to the national security. (JP 1-02)

most capable Service or agency. The organization that is best suited to provide common supply commodity or logistic service support within a specific joint operation. In this context, "best suited" could mean the Service or agency that has required or readily available resources and/or expertise. The most capable Service may or may not be the dominant user in any particular operation. (JP 1-02)

multinational force. A force composed of military elements of nations who have formed an alliance or coalition for some specific purpose. (JP 1-02)

multinational operations. A collective term to describe military actions conducted by forces of two or more nations, usually undertaken within the structure of a coalition or alliance. (JP 1-02)

munition. A complete device charged with explosives, propellants, pyrotechnics, initiating composition, or nuclear, biological or chemical material for use in military operations, including demolitions. Certain suitably modified munitions can be used for training, ceremonial or nonoperational purposes. Also called ammunition. (Note: In common usage, "munitions" (plural) can be military weapons, ammunition, and equipment.) (JP 1-02)

National Command Authorities. The President and the Secretary of Defense or their duly deputized alternates or successors. Also called NCA. (JP 1-02)

net explosive weight. The actual weight in pounds of explosive mixtures or compounds, including the trinitrotoluene equivalent of energetic material, that is used in determination of explosive limits and explosive quantity data arcs. Also called NEW. (This term and its definition are approved for inclusion in the next edition of JP 1-02.)

operational level of war. The level of war at which campaigns and major operations are planned, conducted, and sustained to accomplish strategic objectives within theaters or other operational areas. Activities at this level link tactics and strategy by establishing operational objectives needed to accomplish the strategic objectives, sequencing events to achieve the operational objectives, initiating actions, and applying resources to bring about and sustain these events. These activities imply a broader dimension of time or space than do tactics; they ensure the logistic and administrative support of tactical forces, and provide the means by

which tactical successes are exploited to achieve strategic objectives. See also strategic level of war; tactical level of war. (JP 1-02)

packaged petroleum product. A petroleum product (generally a lubricant, oil, grease, or specialty item) normally packaged by a manufacturer and procured, stored, transported, and issued in containers having a fill capacity of 55 United States gallons (or 45 Imperial gallons, or 205 liters) or less. (JP 1-02)

pipeline. In logistics, the channel of support or a specific portion thereof by means of which materiel or personnel flow from sources of procurement to their point of use. (JP 1-02)

pre-position. To place military units, equipment, or supplies at or near the point of planned use or at a designated location to reduce reaction time, and to ensure timely support of a specific force during initial phases of an operation. (JP 1-02)

prime vendor. A contracting process that provides commercial products to regionally grouped military and federal customers from commercial distributors using electronic commerce. Customers typically receive materiel delivery through the vendor's commercial distribution system. Also called PV. (This term and its definition are approved for inclusion in the next edition of JP 1-02.)

redeployment. The transfer of forces and materiel to support another joint force commander's operational requirements, or to return personnel, equipment, and materiel to the home and/or demobilization stations for reintegration and/or out processing. (JP 1-02)

resupply. The act of replenishing stocks in order to maintain required levels of supply. (JP 1-02)

security assistance. Group of programs authorized by the Foreign Assistance Act of 1961, as amended, and the Arms Export Control Act of 1976, as amended, or other related statutes by which the United States provides defense articles, military training, and other defense-related services, by grant, loan, credit, or cash sales in furtherance of national policies and objectives. (JP 1-02)

shelf life. The length of time during which an item of supply, subject to deterioration or having a limited life that cannot be renewed, is considered serviceable while stored. (JP 1-02)

single integrated theater logistic manager. Service component or agency, usually in a mature theater, that is designated by the combatant commander or subunified commander as the single in-theater manager for planning and execution of a specific common-user logistic (CUL) item or related items. Single integrated logistic managers are normally long-term in nature with responsibilities that include planning, coordination, control, and execution of a specific CUL function (or similar CUL functions) at the theater level, in both peacetime and during actual operations, within the parameters of combatant commander's directives. Also called SITLM. (JP 1-02)

single port manager. Through its transportation component commands, the US Transportation Command is the Department of Defense-designated single port manager for all common-user aerial and seaports world-wide. The single port manger performs those functions necessary to support the strategic flow of the deploying forces' equipment and sustainment from the aerial and sea port of embarkation and hand-off to the combatant commander in the aerial and sea port of debarkation (APOE and SPOD). The single port manager is responsible for providing

strategic deployment status information to the combatant commander and to manage workload of the APOD and SPOD operator based on the commander's priorities and guidance. The single port manager is responsible through all phases of the theater aerial and seaport operations continuum, from a unimproved airfield and bare beach deployment to a commercial contract supported deployment. Also called SPM. (JP 1-02)

strategic airlift. The common-user airlift linking theaters to the continental United States (CONUS) and to other theaters as well as the airlift within CONUS. These airlift assets are assigned to the Commander in Chief, United States Transportation Command. Due to the intertheater ranges usually involved, strategic airlift is normally comprised of the heavy, longer range, intercontinental airlift assets but may be augmented with shorter range aircraft when required. Also called intertheater airlift. See also theater airlift. (JP 1-02)

strategic level of war. The level of war at which a nation or group of nations determines national or alliance security objectives and develops and uses national resources to accomplish those objectives. Activities at this level establish national and alliance military objectives; sequence initiatives; define limits and assess risks for the use of military and other instruments of power; develop global or theater war plans to achieve those objectives; and provide armed forces and other capabilities in accordance with strategic plans. See also operational level of war; tactical level of war. (JP 1-02)

supplies. In logistics, all materiel and items used in the equipment, support, and maintenance of military forces. (JP 1-02)

supply. The procurement, distribution, maintenance while in storage, and salvage of supplies, including the determination of kind and quantity of supplies. a. producer phase — That phase of military supply that extends from determination of procurement schedules to acceptance of finished supplies by the military Services. b. consumer phase — That phase of military supply which extends from receipt of finished supplies by the Military Services through issue for use or consumption. (JP 1-02)

supply chain. The linked activities associated with providing materiel from a raw materiel stage to an end user as a finished product. (This term and its definition are approved for inclusion in the next edition of JP 1-02.)

supply chain management. A cross-functional approach to procuring, producing, and delivering products and services to customers. The broad management scope includes sub-suppliers, suppliers, internal information, and funds flow. (This term and its definition are approved for inclusion in the next edition of JP 1-02.)

sustainability. See military capability.

sustainment. The provision of personnel, logistic, and other support required to maintain and prolong operations or combat until successful accomplishment or revision of the mission or of the national objective. (JP 1-02)

tactical level of war. The level of war at which battles and engagements are planned and executed to accomplish military objectives assigned to tactical units or task forces. Activities at this level focus on the ordered arrangement and maneuver of combat elements in relation to each other and to the enemy to achieve combat objectives. See also operational level of war; strategic level of war. (JP 1-02)

theater airlift. The airlift assigned or attached to a combatant commander other than

Commander in Chief, US Transportation Command, which provides air movement and delivery of personnel and equipment directly into objective areas through air landing, airdrop, extraction, or other delivery techniques; and the air logistic support of all theater forces, including those engaged in combat operations, to meet specific theater objectives and requirements. Also called intratheater airlift. See also strategic airlift. (JP 1-02)

throughput. The average quantity of cargo and passengers that can pass through a port on a daily basis from arrival at the port to loading onto a ship or plane, or from the discharge from a ship or plane to the exit (clearance) from the port complex. Throughput is usually expressed in measurement tons, short tons, or passengers. Reception and storage limitation may affect final throughput. (JP 1-02)

time-phased force and deployment data. The Joint Operation Planning and Execution System data base portion of an operation plan; it contains time-phased force data, non-unit-related cargo and personnel data, and movement data for the operation plan, including: a. In-place units. b. Units to be deployed to support the operation plan with a priority indicating the desired sequence for their arrival at the port of debarkation. c. Routing of forces to be deployed. d. Movement data associated with deploying forces. e. Estimates of non-unit-related cargo and personnel movements to be conducted concurrently with the deployment of forces. f. Estimate of transportation requirements that must be fulfilled by common-user lift resources as well as those requirements that can be fulfilled by assigned or attached transportation resources. Also called TPFDD. (JP 1-02)

traffic management. The direction, control, and supervision of all functions incident to the procurement and use of freight and passenger transportation services. (JP 1-02)

transportation component command. The three component commands of US Transportation Command: Air Force Air Mobility Command; Navy Military Sealift Command; and Army Military Traffic Management Command. Each transportation component command remains a major command of its parent Service and continues to organize, train, and equip its forces as specified by law. Each transportation component command also continues to perform Service-unique missions. Also called TCC. (JP 1-02)

Voluntary Intermodal Sealift Agreement. The objective of the Voluntary Intermodal Sealift Agreement (VISA) is to provide the Department of Defense (DOD) with assured access to US flag assets, both vessel capacity and intermodal systems, to meet DOD contingency requirements. VISA is an improvement to the Sealift Readiness Program and both programs will be utilized to provide required lift assets. VISA is modeled after the DOD Civil Reserve Air Fleet program. Carriers contractually commit specified portions of their fleet to meet time-phased DOD contingency requirements. The worldwide intermodal system provided by these carriers provides extensive and flexible capabilities to the Department of Defense. Also called VISA. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

war reserves. Stocks of materiel amassed in peacetime to meet the increase in military requirements consequent upon an outbreak of war. War reserves are intended to provide

the interim support essential to sustain operations until resupply can be effected. (JP 1-02)

weapon(s) system. A combination of one or more weapons with all related equipment, materials, services, personnel and means of delivery and deployment (if applicable) required for self-sufficiency. (JP 1-02)

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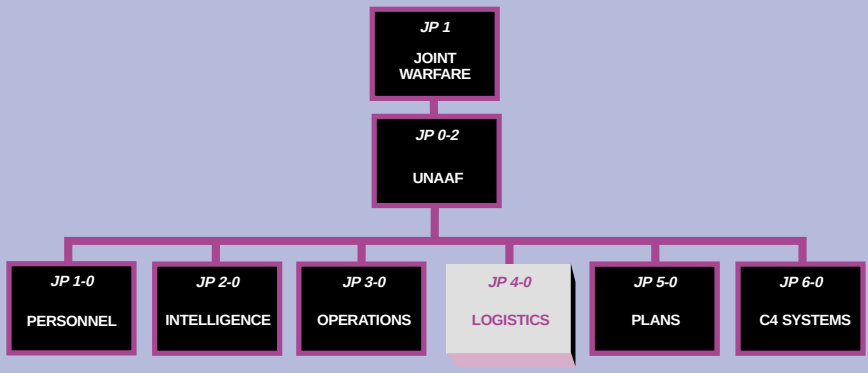
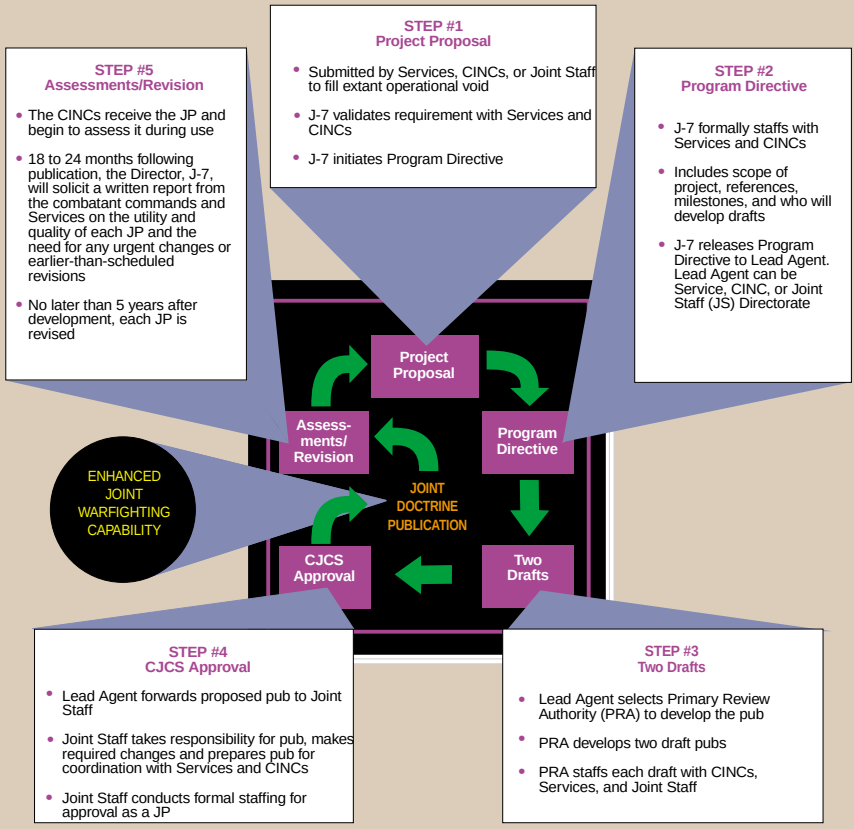


All joint doctrine and tactics, techniques, and procedures are organized into a comprehensive hierarchy as shown in the chart above. **Joint Publication (JP) 4-09** is in the **Logistics** series of joint doctrine publications. The diagram below illustrates an overview of the development process:

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